



Second Five-Year Review Report

for

Adams Plating Company Site.

**Lansing
Ingham County, Michigan**

June 2005

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6-27-05

Five-Year Review Report

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List of Acronyms

AOC	Administrative Order on Consent
APC	Adams Plating Company
ARAR	Applicable or Relevant and Appropriate Requirement
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CIC	Community Involvement Coordinator
DCA	Dichloroethane
ESD	Explanation of Significant Differences
GRCC	Generic Residential/ Commercial 1 Drinking Water Criteria
GSi	Groundwater/Surface Water Interface
ICHHD	Ingham County Health Department
ICs	Institutional Controls
MCL	Maximum Contaminant Level
MDEQ	Michigan Department of Environmental Quality
MEK	Methyl Ethyl Ketone
mg/kg	Milligram Per Kilogram
MSL	Mean Sea Level
NCP	National Contingency Plan
NPL	National Priorities List
ppb	Parts Per Billion
ppm	Parts Per Million
PRP	Potentially Responsible Party
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SVOC	Semi-Volatile Organic Chemical
TCA	Trichloroethane
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
µg/kg	Microgram Per Kilogram
VOC	Volatile Organic Chemical

Executive Summary

The remedy for the Adams Plating Company Superfund Site, located in Lansing, Michigan included the following components:

- Excavation of contaminated soils and off-site disposal in a Michigan Act 641/Resource Conservation and Recovery Act Subtitle D landfill;
- Collection and treatment of water from excavation/de-watering activities;
- Replacement of the excavated soil with clean fill and the installation of vertical barriers to reduce the potential for re-contamination of the fill;
- If necessary, land use restrictions including deed restrictions on installation of wells and excavation of contaminated soils; and
- Groundwater monitoring to evaluate the effectiveness of the soil remediation and to monitor for continuing sources of contamination.

The following modifications were made to the ROD in the September 30, 1994 ESD:

- Two additional structures (garage and shed) needed to be removed due to their proximity to the excavation;
- Cleanup standards were updated to 33.5 mg/Kg for chromium and 5.8 mg/kg for arsenic based on post-ROD background sampling results;
- Excavation proceeded to the maximum depth of ten feet without a requirement to conduct verification sampling of the excavation floor, which might have allowed excavation to terminate above the ten foot depth, as long as performance standards were met;
- Samples were not analyzed for hexavalent chromium since performance standards for total chromium were achieved; and
- Soils were excavated laterally until background cleanup levels were achieved or a building foundation was encountered.

Construction began in August 1994, and construction activities were completed in October 1994. The site achieved construction completion with the signing of the Closeout Report on September 28, 1995. The trigger action for this five-year review was the completion date for the first five-year review, October 7, 1999.

The remedy at the Adams Plating Company Site currently protects human health and the environment because the groundwater monitoring program and the continued maintenance of the warehouse and the Adams plating building protect human health and the environment in the short term. However, in order for the remedy to be protective in the long-term, it may become necessary to have additional institutional controls put in place to prevent exposure to contaminated groundwater and soils if they are found to be contaminated.

Five-Year Review Summary Form

SITE IDENTIFICATION

Site name (from WasteLAN): Adams Plating Company.

EPA ID (from WasteLAN): MID006522791

Region: 5

State: MI

City/County: Lansing, Ingham County

SITE STATUS

NPL status: ☒ Final ☐ Deleted ☐ Other (specify) _____

Remediation status (choose all that apply): ☐ Under Construction ☒ Operating ☐ Complete

Multiple OUs? ☐ YES ☒ NO

Construction completion date: 09/28/1995

Has site been put into reuse? ☒ YES ☐ NO

REVIEW STATUS

Lead agency: ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency _____

Author name: Pablo N. Valentín

Author title: Remedial Project Manager

Author affiliation: U.S. EPA

Review period:** 06/15/2004 to 02/28/2005

Date(s) of site inspection: 02/11/2005

Type of review:

- ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only
☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead
☐ Regional Discretion

Review number: ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify) _____

Triggering action:

- ☐ Actual RA Onsite Construction at OU # _____ ☐ Actual RA Start at OU# _____
☐ Construction Completion ☒ Previous Five-Year Review Report
☐ Other (specify) _____

Triggering action date (from WasteLAN): 10/07/1999

Due date (five years after triggering action date): 10/07/2004

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd.

Issues:

- 1) Deed restrictions are not in place on the warehouse property at 511 North Rosemary;
- 2) The Adams Plating PRP petitioned MDEQ for a revision to the current groundwater monitoring program to either reduce the number of wells being sampled or the sampling frequency.

Recommendations and Follow-up Actions:

- 1) Periodic inspections will be conducted to ensure that drinking water wells are not installed in the area and that the warehouse is maintained. USEPA will request the Adams Plating PRP to conduct these inspections;
- 2) MDEQ, in consultation with USEPA will consider whether the request to modify the groundwater monitoring program should be granted.

Protectiveness Statement:

The remedy at the Adams Plating Company Site currently protects human health and the environment because the groundwater monitoring program and the continued maintenance of the warehouse and the Adams plating building protect human health and the environment in the short term. However, in order for the remedy to be protective in the long-term, it may become necessary to have additional institutional controls put in place to prevent exposure to contaminated groundwater and soils if they are found to be contaminated.

Other Comments:

None

Five-Year Review Report

I. Introduction

The purpose of five-year reviews is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and recommendations to address them.

The Agency is preparing this five-year review pursuant to the CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

The agency interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

The United States Environmental Protection Agency (U.S. EPA) Region 5 has conducted a five-year review of the remedial actions implemented at the Adams Plating Company Site, located in Lansing, Ingham County, Michigan. This review was conducted by the Remedial Project Manager (RPM) from December 27, 2004 through February 18, 2005. This report documents the results of the review.

This is the second five-year review for the Adams Plating Company Site. The triggering action for this statutory review is the completion date for the first five-year review as shown in U.S. EPA's WasteLAN database: October 07, 1999. This review is required because certain response actions are ongoing and hazardous substances, pollutants, or contaminants are or will be left on site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

Table 1: Chronology of Site Events

Event	Date
Underground Storage Tank containing Stoddard Solvent removed because of leakage	Mid-1950s
Property is transferred to James and Sheila Adams and begins operations as electroplating business	1964
Wastewater was discharged to a clay tile drain system	Before 1971
Adams Plating connected to the municipal sewer system	1971
Adams Plating cited several times for violations of City Codes regulating discharge of treated wastes to the municipal sewer	Before 1980
Pretreatment of wastewater begins	Early 1980s
Adams Plating is placed on the NPL	March 1989
Phase I of the RI begins	August 1989
TAT collects four basement water samples in nearby residences	November 28, 1989
Phase II of the RI and FS begins	March 1991
RI completed	March 1993
FS completed	July 1993
ROD signature	September 29, 1993
EPA performs RD/RA	September 1993 through September 1994
ESD issued	September 30, 1994
Superfund Site Close Out Report	September 28, 1995
First Five-Year Review	October 7, 1999

III. Background

Site Characteristics

The Adams Plating Company property is approximately a one acre parcel of land located at 521 Rosemary Street in Lansing, Michigan. The Site is located near the center of a one mile radius bend of the Grand River (see Attachment 1, Figure 1). The river is about 1 mile north, 1.25 miles south, and 2 miles east of the Site. The population density is approximately 1,800 people per square mile around the Site. The block on which the Site is located contains numerous small businesses and private residences.

Land and Resource Use

The Site is situated in a densely populated mix of commercial, industrial, and residential area of the City of Lansing. Large commercial and public properties within a half-mile radius of the site include automobile plant operations, a cemetery, several schools, three local parks, a golf course and a hospital. The block on which the Site is located contains numerous private residences and several small service businesses, such as a warehouse company (William E. Walter Mechanical Contractor) and a fire extinguisher recharging company (De Lau Fire and safety Company). The nearest private residence is within 25 feet of the Site. Directly across the street from the Site and to the east lies the General Motors Oldsmobile Production and Assembly Plant # 2.

The Site is physiographically located in the south-central part of Michigan's Lower Peninsula. The Site lies approximately 850 feet above mean sea level (MSL). The topography of the area is flat or gently rolling as a result of glacial and post-glacial erosional processes. The Site is located on ground moraine and till plain approximately one-half mile north of the Lansing Moraine. No perennial surface water bodies or wetlands are present on or near the Site. The nearest water body is a small pond located approximately 3,000 feet southwest of the Site. Surface water drainage is northeast, east and southeast, following the general topography of the Site and surrounding area. All residents and businesses in the vicinity of the Site receive their water from the municipal system, which serves the Lansing area. The Lansing Township Well No. 4 is the water supply well closest to the Site and is located approximately 1,200 feet northwest of the Site. Records indicate that no private wells exist in the immediate vicinity of the Site.

History of Contamination

The Adams Plating building was occupied by the Verrakleen dry cleaning establishment before 1964. A dry cleaning fluid known as Stoddard solvent, which consists of a mineral spirit that contains chlorinated hydrocarbons, paraffins, and aromatic hydrocarbons, was stored in a 500 gallon underground storage tank (UST) at the site. This UST was removed in the mid 1950's due to leakage. The former location of the UST is not known.

In 1964, the property was transferred to James and Sheila Adams who began to operate the plant as an electroplating business. Currently, the facility is owned by their son, Steve Adams.

Wastewater from the facility was discharged to a clay tile drain system prior to 1971. Adams Plating connected to the municipal sewer in 1971. The wastewater started to be pre-treated in the

early 1980s. During this time wastewater was stored before pretreatment in a plank covered, partially buried, metal dipping tank. This 800 gallon tank was removed on an unknown date because of leakage.

Initial Response and Basis for Taking Action

In July 1980, the owner of the Meyer house at 510 Grace Street, hired a backhoe operator to remove a tree from his property. An old tile drain was broken as the tree was uprooted. Later that month green water began infiltrating the basement of the Meyer house. The Ingham County Health Department (ICHHD) inspected and collected samples of the green water for analysis. The analyses indicated 130 to 150 parts per million (ppm) of total chromium in the water. At ICHHD's suggestion, James Adams arranged to pump the water from the basement and transfer it by tank truck to the underground wastewater holding tanks at the Adams Plating building. ICHHD performed subsurface investigations at the site that indicated that plating waste had migrated through a sand lens and was not confined entirely to the tile drain system. Therefore, ICHHD urged James Adams to install a subsurface interceptor and collector system between the Adams Plating building and the basement of the Meyer house. While the collection system appeared to reduce the volume of contamination reaching the Meyer house, local and State agencies continued to express concern over the extent of contamination. In response to this concern USEPA conducted a detailed site review in 1986. The site was proposed for the National Priorities List (NPL) in June 1988. In March 1989, Adams Plating was placed on the NPL. USEPA conducted the Remedial Investigation (RI) in two phases. Phase I of the RI began in August 1989. Work on phase II of the RI began in March 1991. The RI was published in March 1993 and the Feasibility Study (FS) was completed in July 1993.

Soils

Elevated concentrations of chromium, copper, and nickel were found in soil samples from the site. The maximum chromium concentration initially detected was 6,976 mg/kg. The maximum concentrations for copper and nickel were 1,810 and 880 mg/kg, respectively. Several volatile organic compounds (VOCs) were also detected at high concentrations, including 1,1-DCA (maximum concentration at 5,300 µg/kg); 1-TCA (maximum concentration at 5,300 µg/kg); chloromethane (maximum concentration at 4,200 µg/kg); 2-butanone (maximum concentration at 4,200 µg/kg); and MEK (maximum concentration at 4,200 µg/kg). The USEPA identified the contaminated soils as posing potential unacceptable risks to human health. Potential exposure routes included ingestion, dermal contact and inhalation of contaminated soils at the Adams Plating site by residents, trespassers, and construction workers. Remediation of contaminated soils under buildings was determined by the USEPA to be unnecessary because building foundations act as a cap and significantly reduce potential exposure to contaminated soils.

Groundwater

Groundwater contamination was detected at the Adams Plating site in excess of the State's cleanup criteria at that time (Michigan's type B cleanup criteria established pursuant to the Environmental Response Act, 1982 PA 307, as amended). Since the groundwater was not found in useable quantities or quality and a connection to a drinking water aquifer was not established, it was deemed inappropriate to remediate the groundwater.

Surface Water

Surface water samples were collected from man-made groundwater collection systems and puddles, rather than natural surface water bodies. The highest concentration of chromium in a surface water sample (21,500 µg/l) was collected from a sump on Adams Plating property designated the "green water drum". The highest concentration of chromium detected in a water sample from a nearby residential basement was 7,960 µg/l. Low concentrations of copper, nickel, and zinc were also detected in the water samples. Because the water was not used for drinking water purposes and did not pose an unacceptable risk by other exposure routes, no remediation was necessary.

IV. Remedial Actions

Remedial Objectives

The remedial objectives for the APC site were identified in the July 1993 FS report. The remedy was intended to prevent residents and trespassers from being exposed to contaminated soils through ingestion, dermal contact and inhalation of particles.

Record of Decision

The ROD for the APC site was issued on September 29, 1993. The selected remedy included the following major components:

- Excavation of contaminated soils and off-site disposal in a Michigan Act 641/RCRA Subtitle D landfill.
- Collection and treatment of water from excavation and de-watering activities.
- Replacement of the excavated soil with clean fill and installation of vertical barriers to reduce the potential for recontamination of clean fill.
- If necessary, land use restrictions including deed restrictions on installation of wells and excavation of contaminated soils.
- Groundwater monitoring to evaluate the effectiveness of the soil remediation and to monitor for continuing sources of contamination.

The soils targeted for excavation included an estimated 4,700 cubic yards of contaminated soils close to the old tile drain system and around existing buildings. Excavation was to proceed laterally until background levels were achieved and vertically to a maximum depth of 10 feet. Soil contamination under the buildings was not considered to pose a risk to human health and the environment because the buildings provided an effective cap. A depth of 10 feet was the maximum realistic depth where USEPA determined possible residential, trespasser and

construction worker exposure could occur during typical construction activities. After completion of the remedial action, a Site specific risk of 1×10^{-6} or less carcinogenic risk and a hazard index ratio of 1.0 or less for exposure due to ingestion, dermal contact or inhalation would result.

Explanation of Significant Differences

An Explanation of Significant Differences (ESD) for the Adams Plating site was issued on September 30, 1994. The purpose of the ESD was to explain four modifications to the selected remedy, as presented in the ROD. The necessary modifications to the ROD performance standards were as follows:

- Two additional structures (garage and shed) needed to be removed due to their proximity to the excavation.
- Cleanup standards were updated to 33.5 mg/kg for chromium and 5.8 mg/kg for arsenic based on post-ROD background sampling results.
- Excavation proceeded to the maximum depth of ten feet without a requirement to conduct verification sampling of the excavation floor, which might have allowed excavation to terminate above the ten foot depth, as long as performance standards were met.
- Samples were not analyzed for hexavalent chromium since performance standards for total chromium were achieved.
- Soils were excavated laterally until background cleanup levels were achieved or a building foundation was encountered.

Remedy Implementation

Soil

USEPA took over the RD/RA phases of the project. USEPA performed the work after determining that the PRP did not have the necessary resources to perform the work. The RA work assignment (no. 68-5NDJ) was awarded to PRC Environmental Management. PRC awarded a construction subcontract to MacKenzie Environmental Sciences, Inc. (MESI). On July 7, 1994, USEPA issued a Consent to Subcontract the Remedial Action issued under ARCS Contract No. 68-W8-0084. The construction contract was awarded to MESI on July, 14, 1993.

Construction at the APC site began on August 1, 1994 and was completed in October 1994. A total of 6,888 cubic yards of contaminated soil were removed and disposed of at an approved landfill. A geocomposite liner was installed as a vertical barrier and the area was backfilled with a silty clay material.

Based on background data collection, cleanup standards for chromium and arsenic were established. The values were 33.5 mg/kg for chromium and 5.8 mg/kg for arsenic. During the initial soil verification sampling, all but nine of the analytical results were below the cleanup standard for chromium. The results that were above the cleanup standard triggered additional excavation until standards were met in subsequent samples or until a building foundation was encountered. All arsenic concentration levels were below the cleanup standard with the exception of three samples. One sample value of 6.4 mg/kg was judged to be acceptable by USEPA and MDEQ due to the fact that it was retrieved from a native clay with a typical background concentration of 6.3 mg/kg of arsenic. To achieve the cleanup standard for the other two samples, excavation was continued an additional 20 feet to the west and was terminated when the standard was met. Excess human health risks due to contaminated soils were eliminated when the soils were removed for off-site disposal.

Institutional Controls

The 1993 ROD provided for institutional controls, such as deed restrictions to prohibit the installation of water wells in the area, and any future development that might disturb contaminated soils, if necessary. No one is currently using groundwater downgrading of the site.

There are two areas where suspected soil contamination remains. These two areas are the soils under the Adams Plating building and the soils located under the warehouse at 511 North Rosemary. The owner of the Adams Plating property placed deed restrictions on the property in 1977 (see Attachment 2). USEPA notified the owner of the warehouse located at 511 North Rosemary of the need for deed restrictions to be executed at his property (see Attachment 3). However, the owner responded to USEPA refusing to take such action at his property (see Attachment 3). At this time, USEPA has no reason to believe that there are any plans to remove the warehouse building foundation. Furthermore, there has not been confirmation of soil contamination under the warehouse building or the Adams Plating building. MDEQ has conducted semi-annual drive-by inspections to observe any changes in land use and ensure that the warehouse building remains intact. Future abandonment or demolition of the warehouse building may be brought to the attention of USEPA and MDEQ by the Adams Plating Site PRP. USEPA believes that these are the best ICs possible for this situation.

Operation and Maintenance

Remedial Design and Remedial Action construction activities at the Site were conducted by USEPA and its contractors. The components of the remedial action were constructed by contractors and sub-contractors to USEPA. All design plans, and field activities were reviewed and approved by US EPA, in consultation with MDEQ, to ensure consistency with the ROD, ESD, the RD, and RA work plans, and federal and state requirements.

USEPA and State Quality assurance/Quality Control (QA/QC) procedures were followed during the RA and subsequent monitoring program. The QA/QC program used throughout pre-design and RA construction was in accordance with USEPA guidelines. Procedures and protocol followed for soil, air, and groundwater sample analysis during the remedial action were

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Operation and Maintenance

Remedial Design and Remedial Action construction activities at the Site were conducted by USEPA and its contractors. The components of the remedial action were constructed by contractors and sub-contractors to USEPA. All design plans, and field activities were reviewed and approved by US EPA, in consultation with MDEQ, to ensure consistency with the ROD, ESD, the RD, and RA work plans, and federal and state requirements.

USEPA and State Quality assurance/Quality Control (QA/QC) procedures were followed during the RA and subsequent monitoring program. The QA/QC program used throughout pre-design and RA construction was in accordance with USEPA guidelines. Procedures and protocol followed for soil, air, and groundwater sample analysis during the remedial action were

documented in the Remedial Action Report dated September 25, 1995.

The QA/QC program used throughout the RA was sufficiently rigorous and was adequately complied with to enable the determination by USEPA that all analytical results reported were accurate to the degree needed to assure satisfactory execution of the remedy.

Groundwater Monitoring Program

APC entered into an Administrative Order on Consent (AOC) with MDEQ for the implementation of the groundwater monitoring activities at the site. Attachment 4 contains figures showing the locations of the groundwater monitoring wells for the Adams Plating site. The ongoing groundwater monitoring events are being conducted by Strata Environmental Services, Inc., a contractor retained by APC for this purpose. Attachment 5 has figures showing elevation of groundwater surface at the deep and shallow monitoring wells as of April 2003. The purpose of the groundwater monitoring program is to ensure that possible soil contamination under the Adams Plating building and the 511 North Rosemary warehouse is not migrating into the aquifer and that the remedy continues to be effective. Attachment 6 contains figures showing results of selected parameters in the most recent round (April 2003) of groundwater sampling at the Adams Plating site as well as a table summarizing the results obtained for the groundwater monitoring program in 1998, 1999, 2000, 2001, and 2003.

V. Progress Since the Last Review

This is the second Five-Year Review for the Adams Plating Company Site. The first Five-Year Review, signed October 7, 1999, made the following recommendations,:

- 1) Adams Plating Company should continue to monitor groundwater to evaluate the effectiveness of the completed remedy.
- 2) Semi-annual evaluations should be completed to ensure that the Adams Plating building and the warehouse south of the facility are maintained and not demolished due to the likelihood that contaminated soils remain in these two areas.

Since the October 7, 1999, Five-Year Review for the Site, the PRP has continued to monitor the groundwater to evaluate the effectiveness of the completed remedy. In addition to continuing groundwater monitoring the Adams Plating building and the warehouse south of the facility have been maintained.

On January 22, 2005, the PRP petitioned MDEQ for a revision to the current groundwater monitoring program. The request proposed to either eliminate some of the wells being tested or to increase the interval between sampling events. Currently, testing takes place on a biannual basis at all existing monitoring wells. Please see Attachment 6.

The monitoring well network consists of the following 15 wells: MW-2d, MW-4s, MW-4d,

MW-5d, MW-6s, MW-6d, MW-7s, MW-7d, MW-8s, MW-8d, MW-9d, MW-11s, MW-11d, MW-12s, and MW-12d.

As discussed above, ICs might be implemented in the future to prevent the installation of wells and the disturbance of soils under the warehouse, if necessary.

VI. Five-Year Review Process

Administrative Components

The Adams Plating Site Five-Year Review was led by Pablo N. Valentín of the USEPA, Remedial Project Manager for the Site and Dave Novak, Community Involvement Coordinator. Mary Schaefer of the MDEQ, assisted in the review as the representative for the support agency. The review, which began on December 18, 2004, consisted of the following components:

- 1) Community Involvement;
- 2) Document Review;
- 3) Data Review;
- 4) Site Inspection; and,
- 5) Five-Year Review Report Development and Review.

Community Involvement

Activities to involve the community in the five-year review were initiated with communication between the RPM and the Community Involvement Coordinator (CIC) for the Site. A notice was sent to the *Lansing State Journal* that a five-year review was being conducted. The notice was published on March 14, 2004 and invited the public to submit any comments to USEPA (see Attachment 8). The results of the review and the report were made available at the Lansing Public Library and the Lansing Township Hall Superfund Site information repositories. No public comments were received during this five-year review.

Document Review

This five-year review consisted of a review of relevant documents including O&M records and monitoring data (See Attachment9). Applicable soil and groundwater cleanup standards, as listed in the ROD were also reviewed (See Attachment 10 & 11).

Data Review

Groundwater Monitoring Evaluation reports developed for Adams Plating Company by Strata Environmental Services, Inc. were reviewed. These reports were prepared as part of the "Agreement for Groundwater Monitoring and operation and Maintenance (AOC-ERD-97-002)" entered between Adams Plating and MDEQ in 1997. The dates of the reports are October 1998, April 1999, April 2000, April 2001, and April 2003. The sampling events were performed on an

annual basis until 2001. On April 22, 2002 MDEQ approved modifications to the 1997 AOC to perform bi-annual groundwater monitoring instead of annually.

Attachment 6 shows table 1 presenting the analytical results from the groundwater sampling in April 2003. Attachment 6 has table 2 containing a summary of trace metal concentrations that exceed Generic Residential/ Commercial 1 Drinking Water Criteria (GRCC). Attachment 5 contains figures depicting the elevation of groundwater in the shallow and deep zones of the aquifer. Attachment 6 contains two figures depicting the distribution of selected analytes and detected VOCs. The following are the conclusions reached in the "Annual Groundwater Monitoring Evaluation (April 2003)". Analytical data obtained during the April 2003 sampling event revealed that 5 VOCs were detected in the groundwater near the APC site. Of these VOCs, none of the reported concentrations exceeded their respective GRCC. Seven trace metals were also detected during this sampling event. Of these metals, aluminum (in 6 samples), iron (in 12 samples) and manganese (in 13 samples) were widely detected at concentrations that exceeded their GRCC. With the exception of the VOCs, it seems that the compounds that exceed GRCC are naturally occurring. Inspection of the hydrogeological data obtained during the April 2003 sampling event indicates that the primary direction of groundwater migration in the deeper wells is, and has consistently been, northerly, and the shallow groundwater has consistently migrated toward the east. The analytical data does not appear to have a distinct areal geochemical distribution (i.e. typical plume shape). Bi-annual groundwater sampling will continue at the APC site.

Site Inspection

The inspection at the site was conducted on February 11, 2005. In attendance were Pablo Valentin from USEPA; Mary Schaefer from MDEQ; Barbara Vetort from MDEQ; and, Steve Adams from Adams Plating. The purpose of the inspection was to assess the protectiveness of the remedy and general conditions of the site.

A complete visual inspection of the remedy was conducted by the entire party. The group performed a walk around of the property taking note of the physical condition of the groundwater monitoring wells, the Adams Plating building, and the warehouse at 511 North Rosemary. In general both buildings are still in use and in good condition. The monitoring wells were in good condition. Attachment 12 contains pictures showing the current conditions at the site.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The review of documents, applicable or relevant and appropriate requirements (ARARs), risk assumptions, and the results of the site inspection indicates that the remedy is functioning as intended by the ROD. Groundwater monitoring systems should continue to ensure that onsite remaining soil contamination is not migrating into the aquifer. The current maintenance procedures, as implemented, will maintain the effectiveness of the response actions.

A review of the ROD and site files was conducted to determine whether institutional controls are in place and functioning as intended. The ROD provided for institutional controls, such as deed restrictions, to prohibit the installation of water wells in the site area and any future development that might disturb contaminated soils, if necessary. Adams Plating has executed and filed deed restrictions on its property to prevent installation of wells and disturbance of soils under the Adams Plating building. The owner of the warehouse located at 551 North Rosemary has not placed deed restrictions on his property. There has not been confirmation of soil contamination under the warehouse building or the Adams Plating building. Historically, MDEQ has inspected the area to ensure that the warehouse is maintained. Inspections will continue to be conducted periodically and USEPA will request the Adams Plating PRP to perform these inspections.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Land use remains consistent with that at the time of the original ROD. A comparison of the soil cleanup standards to the current Michigan Part 201 standards in Attachment 9 shows that the ROD standards remain protective. Attachment 9 also compares the groundwater cleanup standards established in the ROD to current Michigan Part 201 standards, also note that the cleanup standards in the 1994 ESD were based on site specific background levels as allowed by Part 201 of NREPA. For all of the contaminants the cleanup standards have either remained the same, or have increased. Therefore the standards for this site are considered protective and significant progress has been made toward reaching the remedial action objectives for the site.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

There is no other information that calls into question the protectiveness of the remedy.

Tec Assessment Summary

There have been no changes in the physical conditions of the site that would effect the protectiveness of the remedy. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

VIII. Issues

Table 2: Issues

Issues	Affects Current Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Deed restrictions are not in place on the warehouse property at 511 North Rosemary.	N	Possibly
The Adams Plating PRP petitioned MDEQ for a revision to the current groundwater monitoring program to either reduce the number of wells being sampled or the sampling frequency.	N	N

IX. Recommendations and Follow-up Actions

Table 3: Recommendations and Follow-up Actions

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
Deed Restrictions not in place in warehouse	Periodic inspections will be conducted to ensure that drinking water wells are not installed in the area and that the warehouse is maintained. USEPA will request the Adams Plating PRP to conduct these inspections.	PRP	USEPA	03/30/2006	N	Possibly
Groundwater Monitoring	MDEQ, in consultation with USEPA will consider whether the request to modify the groundwater monitoring program should be granted.	Adams Plating	MDEQ	03/30/2006	N	N

X. Protectiveness Statement

The remedy at the Adams Plating Company Site currently protects human health and the environment because the groundwater monitoring program and the continued maintenance of the warehouse and the Adams plating property protect human health and the environment in the short term. However, in order for the remedy to be protective in the long-term, it may become necessary to have additional institutional controls put in place to prevent exposure to contaminated groundwater and soils if they are found to be contaminated.

XI. Next Review

The next five-year review for the Adams Plating Company Site is required by June 30, 2010, five years from the date of this review.

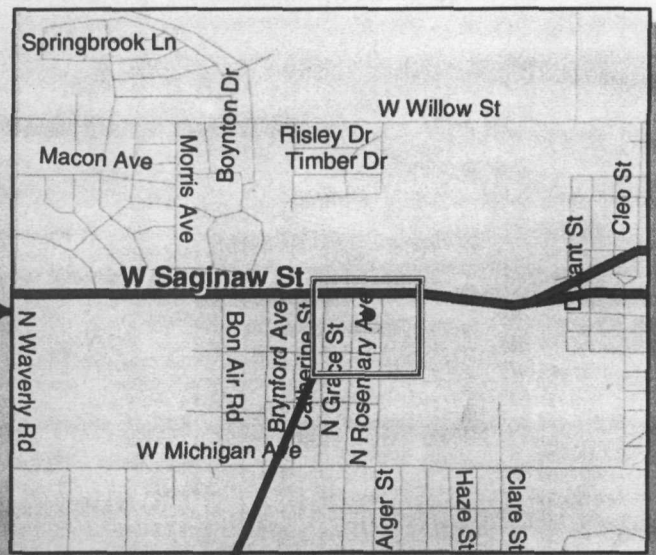
Attachment 1

Site Map

Adam's Plating Superfund Site Ingham County, Michigan

2) Ingham County

1) State



3) Adam's Plating Site



Plot created by Eva Sinha U.S. EPA Region 5 10/12/2004
Color Infra-Red Image Date: 4/23/1995

Figure 1

Attachment 2

Deed Restrictions



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

SEP 22 1995

Stephen Adams
Adams Plating Company
521 North Rosemary Street
Lansing, MI 48917

Dear Mr. Adams,

As you may remember, during the summer of 1994, the United States Environmental Protection Agency (U.S. EPA) in cooperation with the Michigan Department of Natural Resources (MDNR) removed a great deal of soil from your property around your building. Soil was removed as part of a Superfund Remedial Action (RA). The goal of this RA was to eliminate health risks associated with soil contamination on your property. This goal was achieved. However, the U.S. EPA believes that there is still some contamination left under your building. U.S. EPA would have had to demolish the current building on your property to remove these suspect soils. U.S. EPA decided that any contamination under the building is not expected to pose a public health problem as long as the building remains intact and in place and soils underlying the building are kept free from disturbance. It is our hope that the building on your property remains intact for years to come. Unfortunately, the possibility exists that the building on your property may need to be removed in the future and contaminants underlying your building once again may pose a health concern.

To protect current and/or future persons who may consider construction activities on your property against potential environmental problems, the attached deed restriction should be recorded in the chain of title for your property. In general, any major construction activities on your property (i.e., building excavation) should be done in consultation and cooperation with the U.S. EPA and MDNR in order to avoid unnecessary endangerment to human health and the environment. We suggest that you contact an attorney to discuss this matter further as you review the attached document. Please respond to this request within thirty days of receipt of this letter.

MAIN OFFICE
333 Albert Ave., Suite 500
P.O. Box 1070
East Lansing, MI 48826
517/351-6200 Fax 351-1195

ST. JOHNS OFFICE
201 East State Street
P.O. Box 436
St. Johns, MI 48879
517/224-2240 Fax 224-6468

**Willingham
& Côté, P.C.**
attorneys & counseors at law

John L. Côté
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Raymond J. Foresman, Jr.
Robert L. Hood
James F. Graves
Marianne E. Samper
John A. Yeager
James L. Dalton, Jr.
David C. Homan

Edward J. Castellani
John E. Wieber
Patricia F. Claire
Curtis R. Hadley
Jane A. Klepac
Robert B. Bellgowan, Jr.
Anthony S. Kogut
Wayne A. Harrison
Steven A. Mitchell

Eleanor E. Lynn
Raynor D. Zillgitt
Sandra Chapman
Mark W. Geschwe
L. Page Graves
of counsel
C. F. Willingham
and
Judith I. Dunwo

July 15, 1997

Mr. Steven Padovani
Remedial Project Manager
Office of Superfund
HSR W-6J
USEPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

RE: Adams Plating Site
Ingham County, Lansing, Michigan

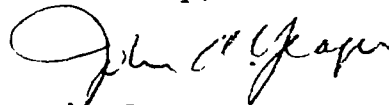
Dear Mr. Padovani:

Under the agreement for ground water monitoring and operation and maintenance entered into between Adams Plating Company and the Michigan Department of Environmental Quality, a copy of the recorded Deed Restrictions showing the Liber and Page is required to be sent to the USEPA. Since my file indicates you are the last known remedial project manager, a copy is being sent to you, referencing the filing of this at Liber 2473, Page 206, Ingham County Records.

I presume this needs to be sent to you, however, if a copy needs to be sent to a different addressee at the EPA, and you are unable to forward it, please advise me to where it should be sent.

Thank you.

Sincerely,



John A. Yeager

JAY/nlh
Enclosures
cc: MDEQ
yeager\84383ltr.07

Deed Restrictions on Adams Plating Company Superfund Site

Adams Plating Company, owner in fee simple of the real estate described below, hereby imposes restrictions on the described real estate, also known as the Adams Plating Company Superfund Site (hereafter "the Site") in Lansing, Ingham County, State of Michigan:

A parcel of land in the west half of the northeast quarter of Section 18, Township 4 North, Range 2 West, Lansing Township, County of Ingham, Michigan being more particularly described as follows:

Tax.: 01-18-204-029
SUBDIVISION: MICHIGAN HEIGHTS
Lot No.: 76 & 77
Property Address: 521 North Rosemary Street
Owner: Adams Plating Company

This parcel contains one-quarter acre, more or less. Subject to all easements and restrictions of record.

The following restrictions are imposed upon the Site, its present and any future owners (including heirs to the above described real estate), their authorized agents, assigns, employees, or persons acting under their direction or control, for the purposes of protecting public health or welfare and the environment, preventing interference with the performance, and maintenance, of any response actions selected and/or undertaken by the United States Environmental Protection Agency ("U.S. EPA"), or any party acting as agent for the U.S. EPA, pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Specifically, the following deed restrictions shall apply to the Site:

1. There shall be no consumptive or other use of the groundwater underlying the Site that could cause exposure of humans or animals to the groundwater underlying the Site;
2. There shall be no residential, commercial, or agricultural use of the Site, including, but not limited to, any on-site excavation, landfilling, mining, invasive construction, drilling, and installation of drinking water production wells, except as approved by U.S. EPA;
3. There shall be no installation, removal, construction or use of any buildings, wells, pipes, roads, ditches or any other structures or materials at the Site except as approved, in writing by U.S. EPA;
4. There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA; and
5. There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by U.S. EPA, or any party acting as agent for U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA, and consistent with all statutory and regulatory requirements.

MAIN OFFICE
333 Albert Ave., Suite 500
P.O. Box 1070
East Lansing, MI 48826
517/351-6200 Fax 351-1195

ST. JOHNS OFFICE
201 East State Street
P.O. Box 436
St. Johns, MI 48879
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**Willingham
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Eleanor E. Lynn
Raynor D. Zillgitt
Sandra Chapman T
Mark W. Geschwer
L. Page Graves
of counsel
C. F. Willingham
and
Judith I. Dunwo

July 15, 1996

Ms. Sally Beebe
Project Manager
Michigan Dept. of Environmental Quality
Environmental Response Division
P.O. Box 30426
Lansing, Michigan 48909-7926

RE: Adams Plating
MDEQ Docket No: AOC-ERD-97-002

Dear Ms. Beebe:

Pursuant to the agreement for ground water monitoring and operation and maintenance, I enclose a copy of the recorded Deed Restrictions on the Adams Plating Company Superfund site, referencing the filing at Liber 2473, Page 206.

I believe this will complete the administrative details for compliance with the agreement. If not, please advise Mr. Adams or myself at your earliest convenience.

Thank you.

Sincerely,

John A. Yeager

JAY/nlh
cc: USEPA
yeager\843831tr.06

307

Liber	2473	Page	206
Acpt No	51981		
MSSR	2.00		RECORDED
MISC	11.00		970023542
RCOP	3.00		06/27/1997 15:38:48
			REGISTER OF DEEDS
			Paula Johnson
			INGHAM COUNTY, MI
Total	16.00		

DEED RESTRICTIONS ON ADAMS PLATING COMPANY SUPERFUND SITE

Stephen J. Adams, a married man, and Cindy L. Adams, his wife, 521 North Rosemary Street, Lansing, Michigan, owners in fee simple of the real estate described below hereby impose restrictions on the described real estate, also known as the Adams Plating Company Superfund Site (hereinafter "the Site") in Lansing, Ingham County, State of Michigan:

A parcel of land in the west half of the northeast quarter of Section 18, Township 4 North, Range 2 West, Lansing Township, County of Ingham, Michigan, being more particularly described as follows:

SUBDIVISION: MICHIGAN HEIGHTS
Lot Nos: 76, 77, 172 and 173
Property Address: 521 North Rosemary Street
Site: Adams Plating Company

This parcel contains one-quarter acre, more or less. Subject to all easements and restrictions of record.

The following restrictions are imposed upon the Site, its present and any future owners (including heirs to the above described owners of real estate), their authorized agents, assigns, employees or persons acting under their direction or control, for the purposes of protecting public health or welfare and the environment, preventing interference with the performance, and maintenance, of any response actions selected and/or undertaken by the United States Environmental Protection Agency ("U.S. EPA"), or any party acting as agent for the U.S. EPA, pursuant to Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). Specifically, the following deed restrictions shall apply to the Site, so long as contaminants are present at the site in excess of performance standards provided for in the Record of Decision dated September 23, 1993, and Explanation of Significant Differences, as amended, and in excess of residential clean up criteria of Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended by 1995 PA 71, [MCL 324.20120a(1)(a)]:

1. There shall be no consumptive or other use of the groundwater underlying the Site that could cause exposure of humans or animals to the groundwater underlying the Site;

*Adams Plating Co.
PO Box 180746
Lansing, MI 48907-46*

COPY OF RECORDING ONLY

2. There shall be no residential or agricultural use of the Site, including, but not limited to, any on-site excavation, landfilling, mining, invasive construction, drilling, and installation of drinking water production wells, and, any commercial or industrial use of the Site shall be limited to the current electroplating and ancillary uses by Adams Plating Company (or a successor operator) and activities incidental thereto, except as approved by U.S. EPA and the MDEQ;
3. There shall be no change in the existing uses of any buildings by Adams Plating Company or a successor operator by way of installation, removal, construction or other changes of use of any buildings, wells, pipes, roads, ditches or any other structures or materials at the Site except as approved in writing by U.S. EPA and the MDEQ;
4. There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA; and
5. There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by U.S. EPA, or any party acting as agent for U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA and the MDEQ, and consistent with all statutory and regulatory requirements.

The obligation to implement and maintain the above restrictions shall run with the land and shall remain in effect until such time as U.S. EPA files with the owner a written certification stating the above restrictions are no longer necessary, or, the Michigan DEQ certifies, in writing that is in a form suitable for filing with the Register of Deeds, that contaminants no longer exceed the performance standards provided for in the Record of Decision and Explanation of Significant Differences, as amended, and the residential clean up criteria of Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended by 1995 PA 71 [MCL 324.20120a(1)(a)].

IN WITNESS WHEREOF, we have caused these Deed Restrictions to be executed this 27th day of June, 1997.

WITNESSES:

Vie Becker
Vie Becker

Stephen J. Adams
Stephen J. Adams

DeeAnn Overton
DeeAnn Overton

Cindy L. Adams
Cindy L. Adams

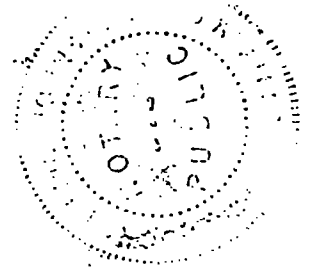
STATE OF MICHIGAN)
COUNTY OF INGHAM) SS
)

On the 27th day of June, 1997, before me appeared Stephen J. Adams and Cindy L. Adams, who acknowledged there signatures above stated as their own free act and deed.

Dorothy L. Johnston
Dorothy L. Johnston

Ingham, Notary Public
Oct 18, 1998 County, Michigan
My Comm. Expires:

Drafted by: John A. Yeager
Willingham and Cote' P.C.
333 Albert Street, Ste 500
P.O. Box 1070
East Lansing, MI 48826
yeager\84383agr



Attachment 3

Letters to Owner of Warehouse

Response Letter from Counsel Representing Owner of Warehouse



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

SEP 22 1995

Gordon Wendling
William E. Mechanical, Inc.
511 N. Rosemary
Lansing, MI 48917

Dear Mr. Wendling,

As you may remember, during the summer of 1994, the United States Environmental Protection Agency (U.S. EPA) in cooperation with the Michigan Department of Natural Resources (MDNR) removed a great deal of soil from your property around your building. Soil was removed as part of a Superfund Remedial Action (RA). The goal of this RA was to eliminate health risks associated with soil contamination on your property. This goal was achieved. However, the U.S. EPA believes that there is still some contamination left under your building. U.S. EPA would have had to demolish the current building on your property to remove these suspect soils. U.S. EPA decided that any contamination under the building is not expected to pose a public health problem as long as the building remains intact and in place and soils underlying the building are kept free from disturbance. It is our hope that the building on your property remains intact for years to come. Unfortunately, the possibility exists that the building on your property may need to be removed in the future and contaminants underlying your building once again may pose a health concern.

To protect current and/or future persons who may consider construction activities on your property against potential environmental problems, the attached deed restriction should be recorded in the chain of title for your property. In general, any major construction activities on your property (i.e., building excavation) should be done in consultation and cooperation with the U.S. EPA and MDNR in order to avoid unnecessary endangerment to human health and the environment. We suggest that you contact an attorney to discuss this matter further as you review the attached document. Please respond to this request within thirty days of receipt of this letter.

Deed Restrictions Related to the Adams Plating Company Superfund Site

Due to contamination related to the Adams Plating Company Superfund Site, Gordon Wendling, owner in fee simple of the real estate described below, hereby imposes restrictions on the described real estate, also known as William E. Walter Mechanical, Inc. (hereafter "the Site") in Lansing, Ingham County, State of Michigan:

A parcel of land in the west half of the northeast quarter of Section 18, Township 4 North, Range 2 West, Lansing Township, County of Ingham, Michigan being more particularly described as follows:

Tax.: 01-18-204-040
SUBDIVISION: MICHIGAN HEIGHTS
Lot No.: 79 & 80
Property Address: 511 North Rosemary Street
Owner: Gordon Wendling of William E. Walter Mechanical, Inc.

This parcel contains one-quarter acre, more or less. Subject to all easements and restrictions of record.

The following restrictions are imposed upon the Site, its present and any future owners (including heirs to the above described real estate), their authorized agents, assigns, employees, or persons acting under their direction or control, for the purposes of protecting public health or welfare and the environment, preventing interference with the performance, and maintenance, of any response actions selected and/or undertaken by the United States Environmental Protection Agency ("U.S. EPA"), or any party acting as agent for the U.S. EPA, pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Specifically, the following deed restrictions shall apply to the Site:

1. There shall be no consumptive or other use of the groundwater underlying the Site that could cause exposure of humans or animals to the groundwater underlying the Site;
2. There shall be no residential, commercial, or agricultural use of the Site, including, but not limited to, any on-site excavation, landfilling, mining, invasive construction, drilling, and installation of drinking water production wells, except as approved by U.S. EPA;
3. There shall be no installation, removal, construction or use of any buildings, wells, pipes, roads, ditches or any other structures or materials at the Site except as approved, in writing by U.S. EPA;
4. There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA; and
5. There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by U.S. EPA, or any party acting as agent for U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA, and consistent with all statutory and regulatory requirements.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

FEB 22 1996

REPLY TO THE ATTENTION OF:

Howard Shand
William E. Mechanical, Inc.
511 North Rosemary
Lansing, MI 48917

Dear Mr. Shand:

This letter is a request for a response to United States Environmental Protection Agency's (U.S. EPA) September 22, 1995 letter ("the letter") concerning deed restrictions on your property related to the Adams Plating Company Superfund Site. Our earlier letter requested that the attached deed restriction be recorded in the chain of title for your property. We would also consider modifications to the attached deed restriction, if you believe any are necessary before the restriction is implemented. A deed restriction is necessary to insure that current and/or future persons who may consider construction activities on your property are made aware that U.S. EPA believes that there remains contamination under the warehouse which may pose an unacceptable risk to human health if it is exposed. Also, a Claymax liner was installed along the excavation sidewalls abutting the warehouse on the north and west sides that must not be penetrated. This liner isolates the contamination under the building from the area that was backfilled with clean soil as part of the Adams Plating remedial action.

In addition, the letter asked for a response within thirty days of receipt of the letter. To date, U.S. EPA has received no response from you. Please provide a response to U.S. EPA's deed restriction request within thirty (30) days of receipt of this letter. If you have any questions concerning this matter, please feel free to call me at (312) 353-6755. Thank you, in advance, for your cooperation.

Sincerely,

Steven J. Padovani
Remedial Project Manager

cc: Thomas Kenney, U.S. EPA Regional Counsel
Sally Beebe, MDNR
Gordon Wendling, William E. Mechanical, Inc.

LAW OFFICES
HICKS, SCHMIDLIN & BANCROFT
A PROFESSIONAL CORPORATION
2300 AUSTIN PARKWAY
SUITE 120
FLINT, MICHIGAN 48507

L. JAMES HICKS
RANDALL R. SCHMIDLIN *
ROBERT H. BANCROFT
CAROLYN S. PRINGLE
DAVID J. LEDERMANN

TELEPHONE (810) 232-5038
FACSIMILE (810) 232-5538

* ALSO ADMITTED IN FLORIDA

March 14, 1996

Steven J. Padovani
Remedial Project Manager
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Wm. E. Walter, Inc. (William E. Mechanical, Inc.)
Lansing, Michigan

Dear Mr. Padovani:

Your correspondence of February 22, 1996 directed to Mr. Howard Shand, owner of the property in question, has been forwarded to me for response. I have also reviewed your correspondence dated September 22, 1995 directed to Mr. Gordon Wendling, who subsequently forwarded same to Mr. Shand.

In my experience in the real estate area, as well as that of a major environmental law firm in Michigan with whom I discussed this matter, neither of us has ever seen the type of restrictions you are proposing. It seems to me that if executed it would, for all practical purposes, make the property in question virtually unsalable. Further, it is my opinion that such deed restrictions would be a "taking" by the government and, as such, Mr. Shand should be entitled to compensation for such "taking."

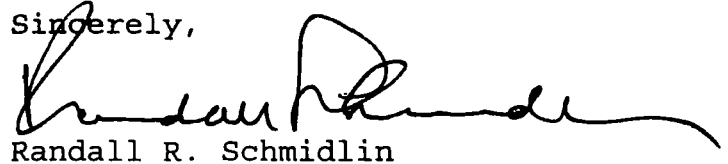
If it is your intention to insist that my client execute such a deed restriction (and I believe that this was originally just a request), I would ask that you provide me with authority showing that you have the right to force such a deed restriction upon my client.

HICKS, SCHMIDLIN & BANCROFT

Steven J. Padovani
Page Two
March 14, 1996

I would be happy to discuss this matter with you in more detail by correspondence or telephone if you wish to do so. Please feel free to contact me with your questions and/or comments.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Randall R. Schmidlin', with a long horizontal flourish extending to the right.

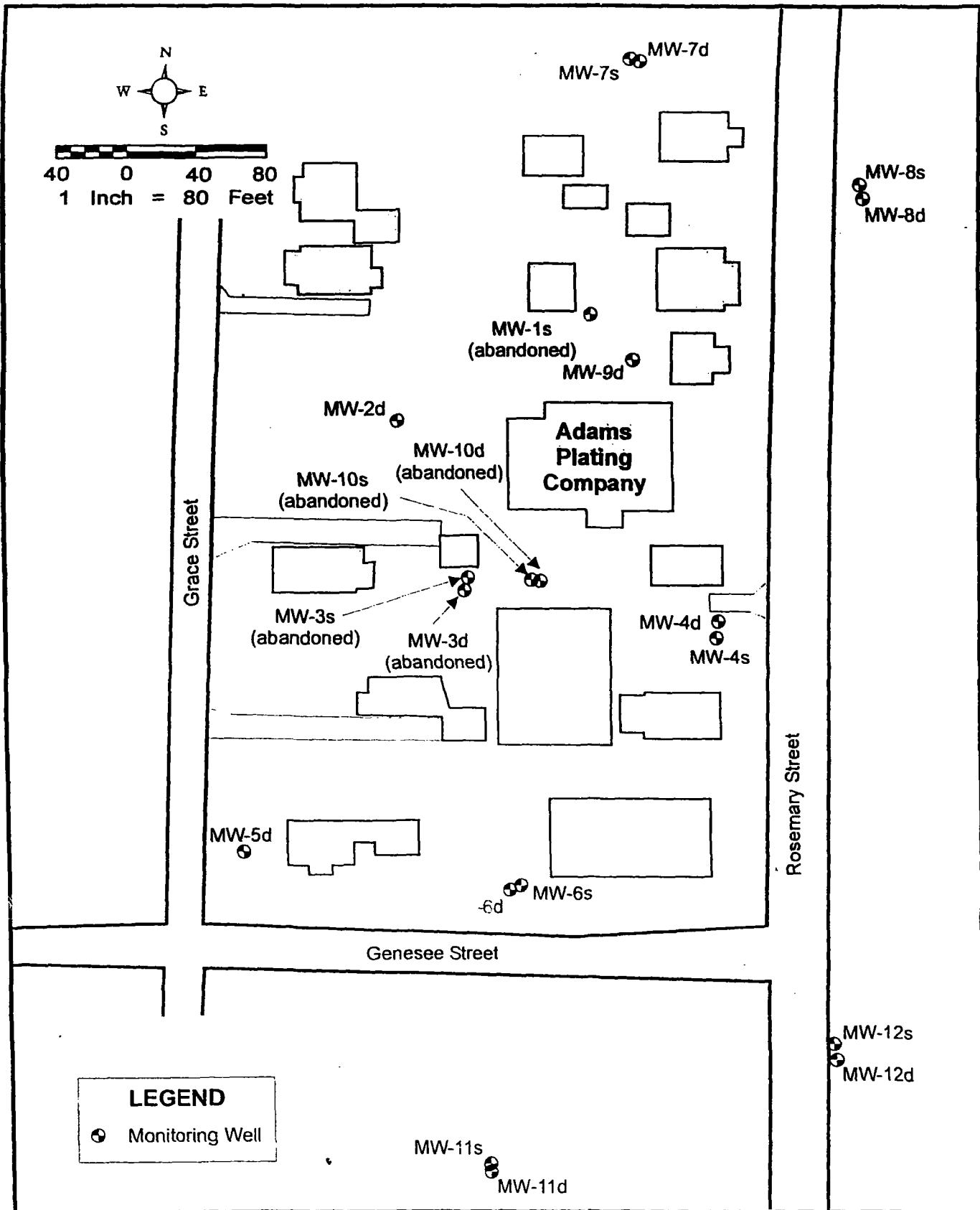
Randall R. Schmidlin

RRS:bc

cc: Mr. Howard Shand
Mr. John Walter

Attachment 4

Groundwater Monitoring Wells Location Map



GROUND-WATER MONITORING
Adams Plating Company

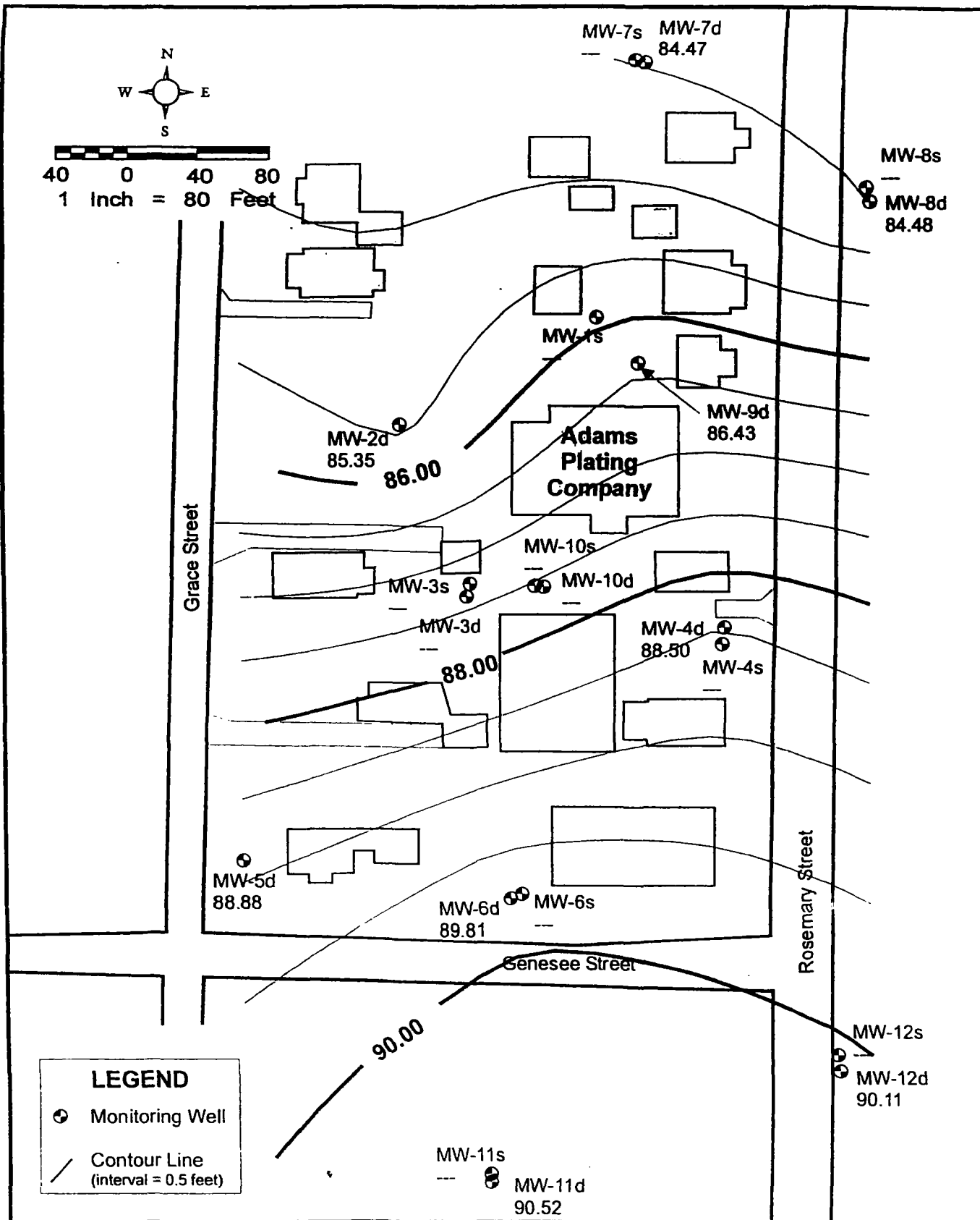
521 Rosemary Street
Lansing, Michigan

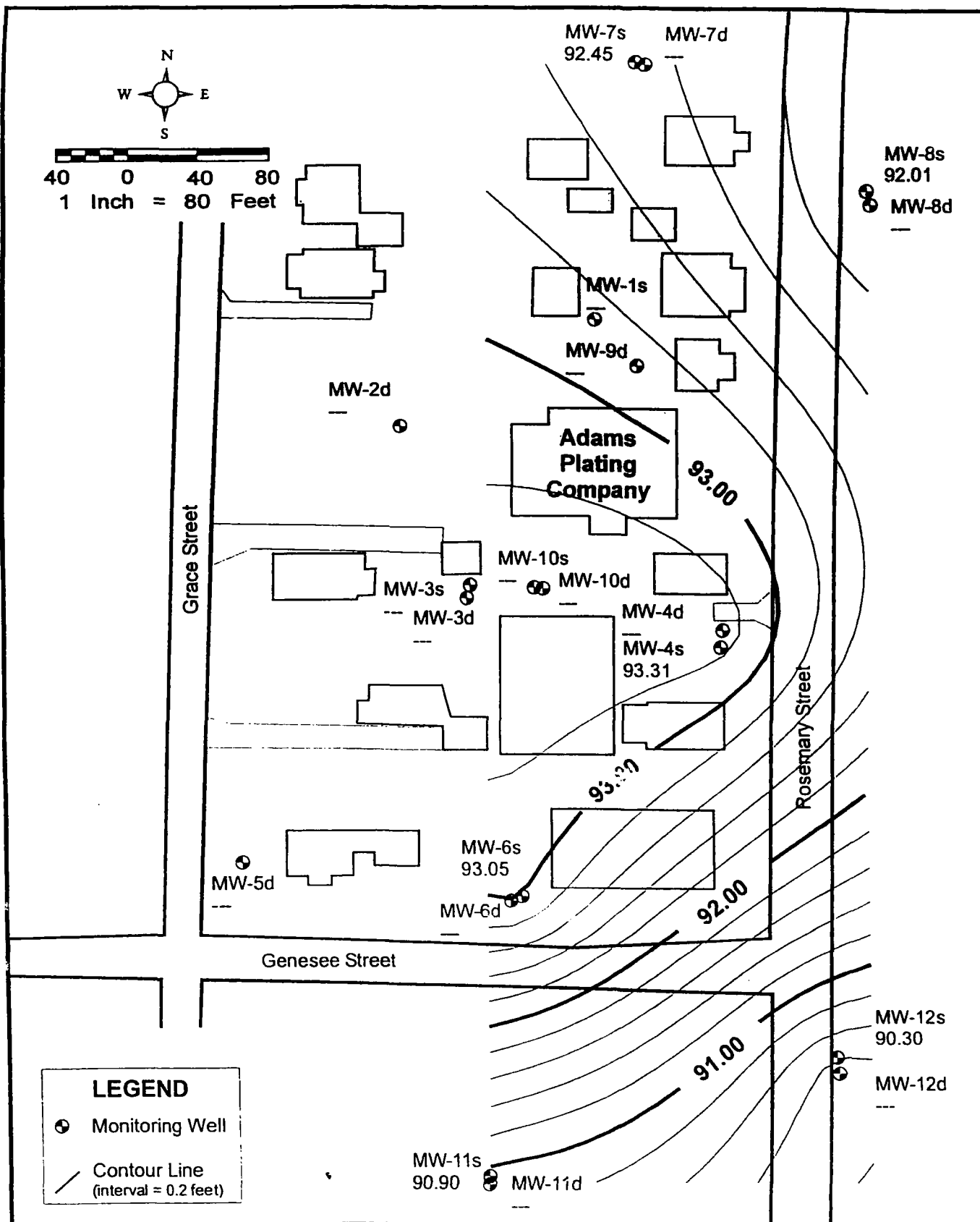
Site Plan
and
Monitoring Well
Locations

Attachment 5

Elevation of Groundwater Surface (April 2003)

Deep
Shallow





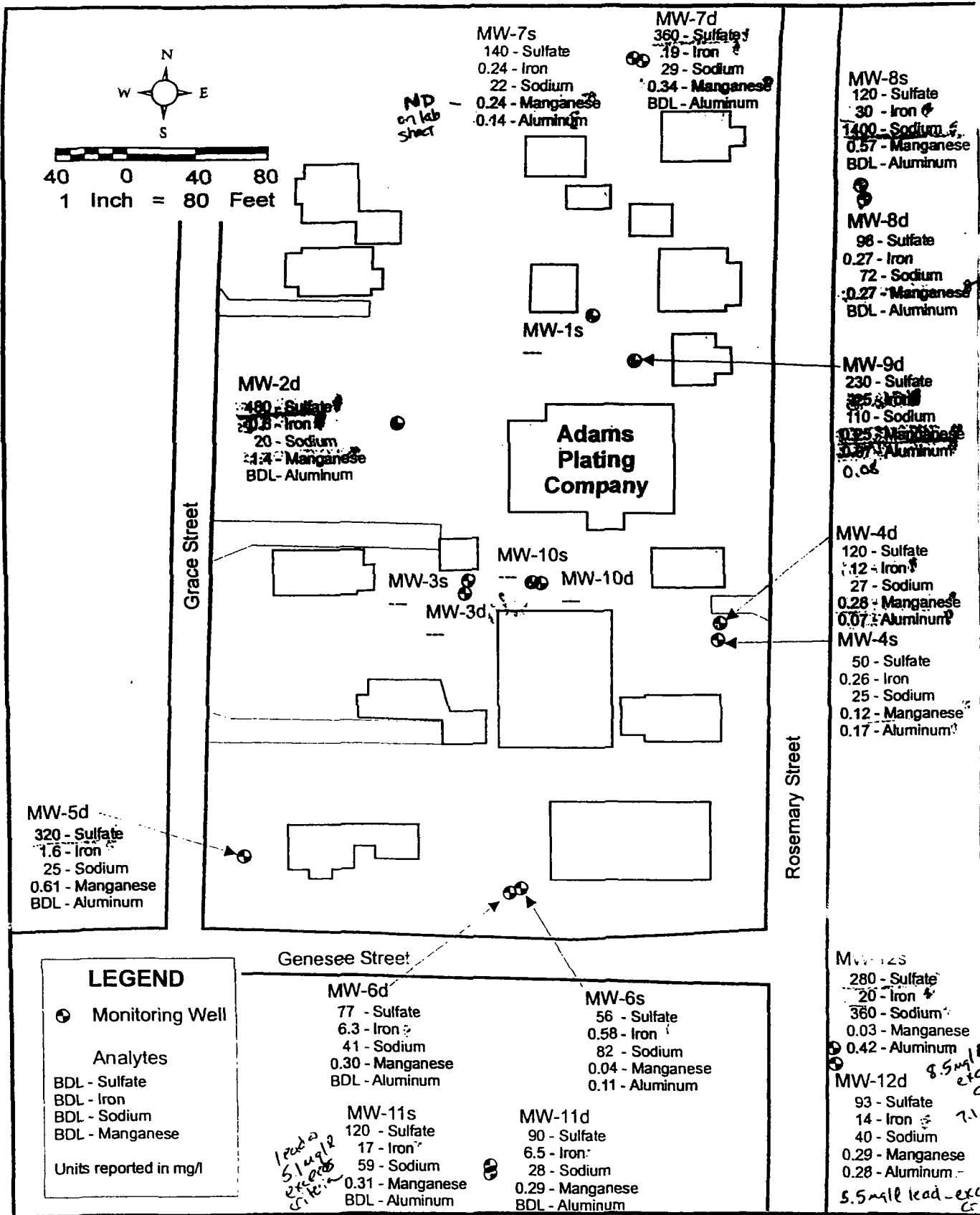
Attachment 6

Distribution of Selected Analytes (April 2003)

Distribution of VOCs (April 2003)

Table 1 - Summary of Water Analyses

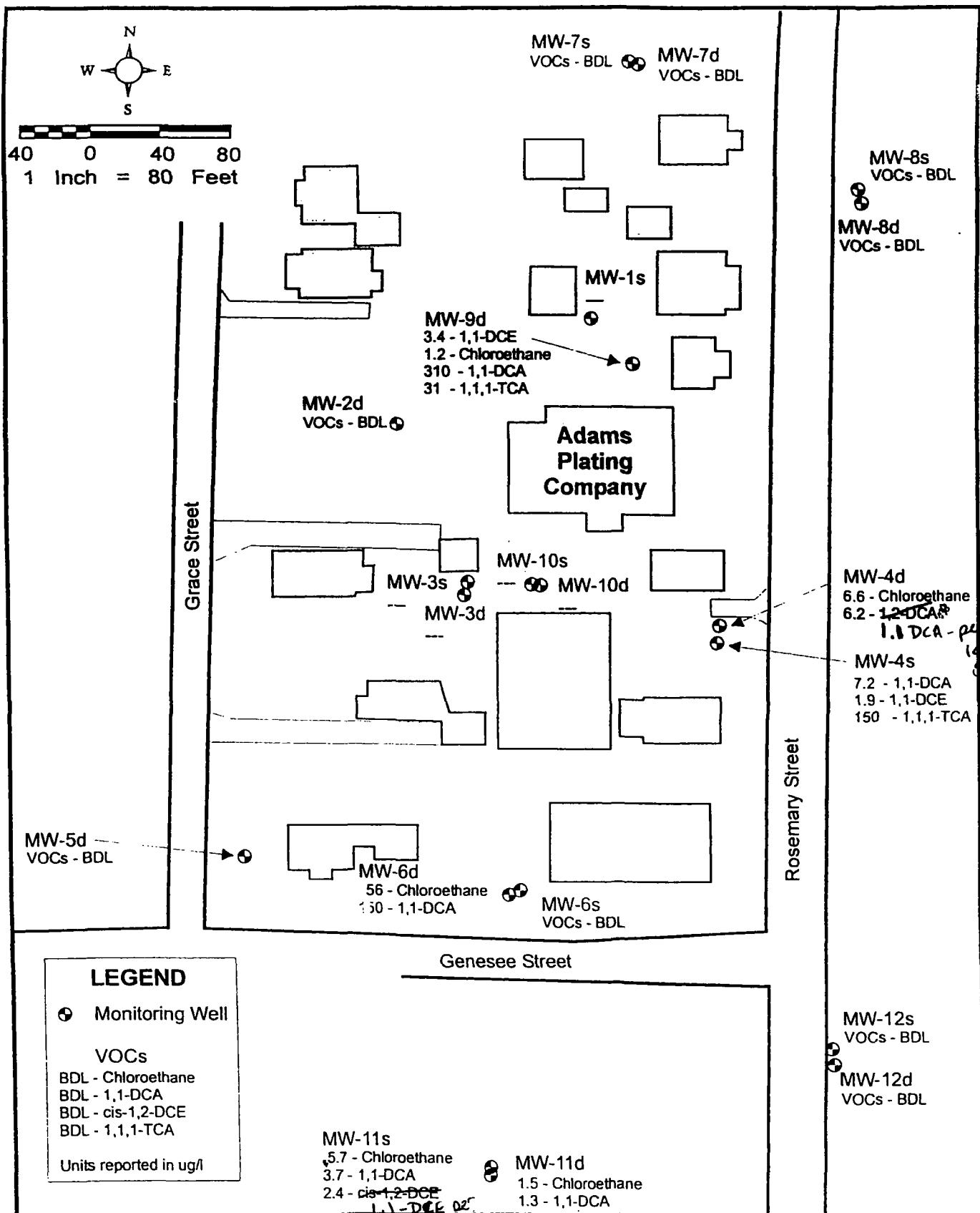
Table 2 - Summary of Trace Metal Concentrations that Exceed GRCC



GROUND-WATER MONITORING Adams Plating Company

521 Rosemary Street
Lansing, Michigan

Distribution of
Selected Analytes
(April 2003)



GROUND-WATER MONITORING Adams Plating Company

521 Rosemary Street
Lansing, Michigan

Distribution of
Detected VOCs
(April 2003)

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	Target Method Detection Limit	Units	Generic Res./Commercial 1 Drinking Water Criteria	MW-2d 4/24/2003	MW-2d 4/12/2001	MW-2d 4/20/2000
MAJOR CONSTITUENTS/MISC. INORGANICS						
CYANIDE (total)	5	ug/l	200	—	BDL	BDL
NITROGEN, Amonia (B)	50	ug/l	10,000(N)	—	BDL	57
NITROGEN, Nitrite/Nitrate (B)	100	ug/l	1,000(N)/10000(N)	BDL	BDL	2290
SULFATE (B)	100000	ug/l	250000 (E)	—	—	—
CALCIUM (B)	200	ug/l	NA	—	220000	200000
MAGNESIUM (B)	100	ug/l	400000	—	150000	210000
POTASSIUM (B)	200	ug/l	NA	—	4300	3100
SODIUM (B)	1000	ug/l	120000	20000	10000	32000
IRON (B)	100	ug/l	300(E)	—	—	—
TRACE METALS						
ALUMINUM (B)	100	ug/l	50(v)	BDL	—	—
ANTIMONY (B)	5	ug/l	6.0(A)	—	BDL	BDL
ARSENIC (B)	2	ug/l	50(A)	—	BDL	BDL
BARIUM (B)	200	ug/l	2000(A)	—	BDL	110
BERYLLIUM (B)	1	ug/l	4(A)	—	BDL	BDL
CADMIUM (B)	0.5	ug/l	5(A)	BDL	BDL	BDL
CHROMIUM (B,H)	50	ug/l	100(A)	7.5	—	2000
COBALT (B)	10	ug/l	40(M)	37	BDL	77
COPPER (B)	25	ug/l	1000(E)	BDL	BDL	40
LEAD (B)	3	ug/l	4(L)	BDL	72	67
MANGANESE (B)	20	ug/l	50(E)	—	140	6100
MERCURY (B)	0.2	ug/l	2(A)	—	BDL	BDL
NICKEL (B)	50	ug/l	100(A)	33	BDL	11000
SELENIUM (B)	5	ug/l	50(A)	—	BDL	BDL
SILVER (B)	0.5	ug/l	34	—	BDL	BDL
THALLIUM (B)	2	ug/l	2(A)	BDL	BDL	BDL
VANADIUM (B)	10	ug/l	4.5	BDL	BDL	BDL
ZINC (B)	20	ug/l	2400	—	77	170
ORGANIC COMPOUNDS						
ACETONE (I)	100	ug/l	730	BDL	BDL	BDL
BENZENE (I)	5	ug/l	5(A)	—	BDL	BDL
BROMOCHLOROMETHANE	1	ug/l	NA	—	BDL	BDL
BROMODICHLOROMETHANE	1	ug/l	100(A,W)	—	BDL	BDL
BROMOFORM	1	ug/l	100(A,W)	—	BDL	BDL
BROMOMETHANE	1	ug/l	10	—	BDL	BDL
2-BUTANONE (MEK) (I)	50	ug/l	13000	—	BDL	BDL
CARBON DISULFIDE (I,R)	50	ug/l	800	—	BDL	BDL
CARBON TETRACHLORIDE	1	ug/l	5(A)	—	BDL	BDL
CHLOROBENZENE (I)	1	ug/l	100(A)	—	BDL	BDL
CHLOROETHANE (I)	1	ug/l	430	BDL	BDL	BDL
CHLOROFORM	1	ug/l	100(A,W)	—	BDL	BDL
CHLOROMETHANE (I)	1	ug/l	260	—	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	1	ug/l	0.2(A)	—	BDL	BDL
DIBROMOCHLOROMETHANE	1	ug/l	100(A,W)	—	BDL	BDL
1,2-DIBROMOETHANE	1	ug/l	0.05(A)	—	BDL	—
1,4-DICHLOROBENZENE	1	ug/l	75(A)	—	BDL	BDL
1,2-DICHLOROBENZENE	1	ug/l	600(A)	—	BDL	BDL
1,3-DICHLOROBENZENE	1	ug/l	6.6	—	BDL	BDL
1,1-DICHLOROETHANE (I)	1	ug/l	880	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	1	ug/l	5(A)	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	1	ug/l	100(A)	—	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	1	ug/l	70(A)	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	1	ug/l	7(A)	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	1	ug/l	5(A)	—	BDL	BDL
trans-1,3-DICHLOROPROPENE	1	ug/l	21	—	BDL	BDL

TABLE 1 SUMMARY OF WATER ANALYSES
Adams Plating Company
Project No. 129-0970

	Target Method Detection Limit	Units	Generic Res./Commercial 1 Drinking Water Criteria	MW-2d 4/24/2003	MW-2d 4/12/2001	MW-2d 4/20/2000
cis-1,3-DICHLOROPROPENE	1	ug/l	21	—	BDL	BDL
ETHYLBENZENE (I)	1	ug/l	74(E)	—	BDL	BDL
2-HEXANONE (I)	50	ug/l	1000	—	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	50	ug/l	1800	—	BDL	BDL
METHYLENE CHLORIDE	5	ug/l	5(A)	—	BDL	BDL
STYRENE (I)	1	ug/l	100(A)	—	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	1	ug/l	8.5	—	BDL	BDL
TETRACHLOROETHENE	1	ug/l	5(A)	—	BDL	BDL
TOLUENE (I)	1	ug/l	790(E)	—	BDL	BDL
1,1,2-TRICHLOROETHANE	1	ug/l	5(A)	—	BDL	BDL
1,1,1-TRICHLOROETHANE	1	ug/l	200(A)	BDL	BDL	BDL
TRICHLOROETHENE	1	ug/l	5(A)	—	BDL	BDL
VINYL CHLORIDE	1	ug/l	2(A)	BDL	BDL	BDL
XYLENES (total) (I)	3	ug/l	280(E)	—	BDL	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-2d	MW-2d	MW-4d	MW-4d	MW-4d	MW-4d	MW-4d
	4/19/1999	10/19/1998	4/23/2003	4/11/2001	4/20/2000	4/19/1999	10/15/1998
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	BDL	BDL	—	BDL	BDL	BDL	BDL
NITROGEN, Amonia (B)	3500	65	—	710	1800	630	620
NITROGEN, Nitrite/Nitrate (B)	140	BDL	140	BDL	210	210	BDL
SULFATE (B)	—	—	120000	110000	130000	—	—
CALCIUM (B)	220000	220000	—	150000	170000	150000	160000
MAGNESIUM (B)	170000	170000	—	40000	45000	43000	44000
POTASSIUM (B)	2400	2800	—	1100	800	940	1000
SODIUM (B)	28000	23000	27000	30000	37000	41000	40000
IRON (B)	—	BDL	—	—	—	—	—
TRACE METALS							
ALUMINUM (B)	—	BDL	—	BDL	BDL	BDL	BDL
ANTIMONY (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
ARSENIC (B)	5	BDL	—	BDL	BDL	3.2	2.7
BARIUM (B)	BDL	BDL	—	240	220	200	200
BERYLLIUM (B)	BDL	BDL	—	BDL	BDL	1.7	BDL
CADMIUM (B)	BDL	BDL	BDL	2.5	BDL	BDL	0.65
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	62	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	5.9	BDL	BDL	BDL	BDL	8.7	BDL
MANGANESE (B)	5000	—	—	—	—	280	280
MERCURY (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
SILVER (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	64	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	170	54	—	BDL	BDL	BDL	22
ORGANIC COMPOUNDS							
ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
BROMOCHLOROMETHANE	BDL	BDL	—	BDL	BDL	BDL	BDL
BROMODICHLOROMETHANE	BDL	BDL	—	BDL	BDL	BDL	BDL
BROMOFORM	BDL	BDL	—	BDL	BDL	BDL	BDL
BROMOMETHANE	BDL	BDL	—	BDL	BDL	BDL	BDL
2-BUTANONE (MEK) (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
CARBON DISULFIDE (I,R)	BDL	BDL	—	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE	BDL	BDL	—	BDL	BDL	BDL	BDL
CHLOROBENZENE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
CHLOROETHANE (I)	BDL	BDL	6.6	BDL	BDL	BDL	BDL
CHLOROFORM	BDL	BDL	—	BDL	BDL	BDL	BDL
CHLOROMETHANE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	BDL	BDL	—	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	BDL	BDL	—	BDL	BDL	BDL	BDL
1,2-DIBROMOETHANE	BDL	BDL	—	BDL	—	BDL	BDL
1,4-DICHLOROBENZENE	BDL	BDL	—	BDL	BDL	BDL	BDL
1,2-DICHLOROBENZENE	BDL	BDL	—	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE	BDL	BDL	—	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	2	BDL	5
1,2-DICHLOROETHANE (I)	BDL	BDL	6.2	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	BDL	BDL	—	BDL	BDL	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
trans-1,3-DICHLOROPROPENE	BDL	BDL	—	BDL	BDL	BDL	BDL

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company

Project No. 129-0970

	MW-2d	MW-2d	MW-4d	MW-4d	MW-4d	MW-4d	MW-4d
	4/19/1999	10/19/1998	4/23/2003	4/11/2001	4/20/2000	4/19/1999	10/15/1998
cis-1,3-DICHLOROPROPENE	BDL	BDL	—	BDL	BDL	BDL	BDL
ETHYLBENZENE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
2-HEXANONE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	BDL	BDL	—	BDL	BDL	BDL	BDL
STYRENE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	—	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	BDL	BDL	—	BDL	BDL	BDL	BDL
TOLUENE (I)	BDL	BDL	—	BDL	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	BDL	BDL	—	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	1.2
TRICHLOROETHENE	BDL	BDL	—	BDL	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	BDL	BDL	—	BDL	BDL	BDL	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-4s	MW-4s	MW-4s	MW-4s	MW-4s	MW-5d	MW-5d
	4/23/2003	4/11/2001	4/20/2000	4/19/1999	10/15/1998	4/24/2003	4/11/2001
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	—	BDL	BDL	8	18	—	BDL
NITROGEN, Ammonia (B)	—	76	180	BDL	79	—	860
NITROGEN, Nitrite/Nitrate (B)	3700	—	—	4400	2700	54	320
SULFATE (B)	50000	40000	47000	—	—	—	—
CALCIUM (B)	—	96000	100000	84000	100000	—	230000
MAGNESIUM (B)	—	25000	27000	BDL	30000	—	63000
POTASSIUM (B)	—	BDL	830	820	1580	—	3100
SODIUM (B)	25000	30000	51000	30000	40000	25000	37000
IRON (B)	260	170	—	BDL	BDL	—	—
TRACE METALS							
ALUMINUM (B)	—	—	—	BDL	BDL	BDL	BDL
ANTIMONY (B)	—	BDL	BDL	BDL	BDL	—	BDL
ARSENIC (B)	—	BDL	BDL	BDL	BDL	—	BDL
BARIUM (B)	—	BDL	BDL	BDL	BDL	—	BDL
BERYLLIUM (B)	—	BDL	BDL	BDL	BDL	—	BDL
CADMIUM (B)	BDL	2.1	2.7	BDL	0.54	BDL	BDL
CHROMIUM (B,H)	82	470	39	65	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	15	BDL
COPPER (B)	BDL	30	33	BDL	BDL	BDL	BDL
LEAD (B)	BDL	4.3	3.5	BDL	BDL	BDL	BDL
MANGANESE (B)	220	63	42	BDL	BDL	310	BDL
MERCURY (B)	—	BDL	BDL	BDL	BDL	—	BDL
NICKEL (B)	27	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	—	5.9	10	BDL	BDL	—	BDL
SILVER (B)	—	BDL	BDL	BDL	BDL	—	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	—	31	41	22	BDL	—	BDL
ORGANIC COMPOUNDS							
ACETONE (I)	BDL	BDL	BDL	<100	<250	BDL	BDL
BENZENE (I)	—	BDL	BDL	<25	<120	—	BDL
BROMOCHLOROMETHANE	—	BDL	BDL	<5	<25	—	BDL
BROMODICHLOROMETHANE	—	BDL	BDL	<5	<25	—	BDL
BROMOFORM	—	BDL	BDL	<5	<25	—	BDL
BROMOMETHANE	—	BDL	BDL	<5	<25	—	BDL
2-BUTANONE (MEK) (I)	—	BDL	BDL	<50	<250	—	BDL
CARBON DISULFIDE (I,R)	—	BDL	BDL	<50	<120	—	BDL
CARBON TETRACHLORIDE	—	BDL	BDL	<5	<25	—	BDL
CHLOROBENZENE (I)	—	BDL	BDL	<5	<25	—	BDL
CHLOROETHANE (I)	BDL	BDL	BDL	<5	<25	BDL	BDL
CHLOROFORM	—	BDL	BDL	<5	<25	—	BDL
CHLOROMETHANE (I)	—	BDL	BDL	<5	<25	—	BDL
1,2-DIBROMO-3-CHLOROPROPANE	—	BDL	BDL	<5	<25	—	BDL
DIBROMOCHLOROMETHANE	—	BDL	BDL	<5	<25	—	BDL
1,2-DIBROMOETHANE	—	BDL	—	<5	<25	—	BDL
1,4-DICHLOROBENZENE	—	BDL	BDL	<5	<25	—	BDL
1,2-DICHLOROBENZENE	—	BDL	BDL	<5	<25	—	BDL
1,3-DICHLOROBENZENE	—	BDL	BDL	<5	<25	—	BDL
1,1-DICHLOROETHANE (I)	7.2	1	2.7	<5	26	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	<5	<25	BDL	BDL
trans-1,2-DICHLOROETHENE	—	BDL	BDL	<5	<25	—	BDL
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	<5	<25	BDL	BDL
1,1-DICHLOROETHENE (I)	1.9	BDL	BDL	<5	<25	BDL	BDL
1,2-DICHLOROPROPANE (I)	—	BDL	BDL	<5	<25	—	BDL
trans-1,3-DICHLOROPROPENE	—	BDL	BDL	<5	<25	—	BDL

TABLE 1 SUMMARY OF WATER ANALYSES

	MW-4s	MW-4s	MW-4s	MW-4s	MW-4s	MW-5d	MW-5d
Adams Plating Company							
Project No. 129-0970	4/23/2003	4/11/2001	4/20/2000	4/19/1999	10/15/1998	4/24/2003	4/11/2000
ds-1,3-DICHLOROPROPENE	—	BDL	BDL	<5	<25	—	BDL
ETHYLBENZENE (I)	—	BDL	BDL	<5	<25	—	BDL
2-HEXANONE (I)	—	BDL	BDL	<50	<250	—	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	—	BDL	BDL	<50	<250	—	BDL
METHYLENE CHLORIDE	—	BDL	BDL	<25	<120	—	BDL
STYRENE (I)	—	BDL	BDL	<5	<25	—	BDL
1,1,2,2-TETRACHLOROETHANE	—	BDL	BDL	<5	<25	—	BDL
TETRACHLOROETHENE	—	BDL	BDL	<5	<25	—	BDL
TOLUENE (I)	—	BDL	BDL	<5	<25	—	BDL
1,1,2-TRICHLOROETHANE	—	BDL	BDL	<5	<25	—	BDL
1,1,1-TRICHLOROETHANE	150		31	160		BDL	BDL
TRICHLOROETHENE	—	BDL	BDL	<5	<25	—	BDL
VINYL CHLORIDE	BDL	BDL	BDL	<5	<25	BDL	BDL
XYLENES (total) (I)	—	BDL	BDL	<15	<75	—	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company

Project No. 129-0970

	MW-5d 4/20/2000	MW-5d 4/19/1999	MW-5d 10/19/1998	MW-6d 4/24/2003	MW-6d 4/12/2001	MW-6d 4/20/2000	MW-6d 4/19/1999
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	BDL	BDL	BDL	—	BDL	BDL	BDL
NITROGEN, Ammonia (B)	190	3000	7900	—	790	350	750
NITROGEN, Nitrite/Nitrate (B)	BDL	980	130	57	BDL	2200	BDL
SULFATE (B)	—	—	—	77000	85000	10000	—
CALCIUM (B)	250000	220000	230000	—	150000	150000	140000
MAGNESIUM (B)	110000	87000	98000	—	32000	39000	36000
POTASSIUM (B)	3200	3200	3700	—	1900	1000	1900
SODIUM (B)	40000	44000	63000	41000	53000	54000	50000
IRON (B)	—	—	—	—	—	—	—
TRACE METALS							
ALUMINUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ANTIMONY (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
ARSENIC (B)	BDL	BDL	5.3	—	BDL	BDL	BDL
BARIUM (B)	130	BDL	BDL	—	170	170	BDL
BERYLLIUM (B)	BDL	BDL	BDL	—	BDL	BDL	1.8
CADMIUM (B)	BDL	BDL	BDL	0.59	0.52	1.5	—
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	17	18	32	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	3	BDL	BDL	BDL	BDL	BDL
MANGANESE (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MERCURY (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
SILVER (B)	BDL	0.81	BDL	—	BDL	BDL	BDL
THALLIUM (B)	BDL	3.3	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	48	BDL	21	—	63	27	46
ORGANIC COMPOUNDS							
ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	<100
BENZENE (I)	BDL	BDL	BDL	—	BDL	BDL	<50
BROMOCHLOROMETHANE	BDL	BDL	BDL	—	BDL	BDL	<10
BROMODICHLOROMETHANE	BDL	BDL	BDL	—	BDL	BDL	<10
BROMOFORM	BDL	BDL	BDL	—	BDL	BDL	<10
BROMOMETHANE	BDL	BDL	BDL	—	BDL	BDL	<10
2-BUTANONE (MEK) (I)	BDL	BDL	BDL	—	BDL	BDL	<100
CARBON DISULFIDE (I,R)	BDL	BDL	BDL	—	BDL	BDL	<50
CARBON TETRACHLORIDE	BDL	BDL	BDL	—	BDL	BDL	<10
CHLOROBENZENE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
CHLOROETHANE (I)	BDL	BDL	BDL	56	26	22	25
CHLOROFORM	BDL	BDL	BDL	—	BDL	BDL	<10
CHLOROMETHANE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
1,2-DIBROMO-3-CHLOROPROPANE	BDL	BDL	BDL	—	BDL	BDL	<10
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	—	BDL	BDL	<10
1,2-DIBROMOETHANE	—	BDL	BDL	—	BDL	—	<10
1,4-DICHLOROBENZENE	BDL	BDL	BDL	—	BDL	BDL	<10
1,2-DICHLOROBENZENE	BDL	BDL	BDL	—	BDL	BDL	<10
1,3-DICHLOROBENZENE	BDL	BDL	BDL	—	BDL	BDL	<10
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	150	180	170	300
trans-1,2-DICHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	<10
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	<10
1,2-DICHLOROPROPANE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
trans-1,3-DICHLOROPROPENE	BDL	BDL	BDL	—	BDL	BDL	<10

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company

Project No. 129-0970

MW-5d

MW-5d

MW-5d

MW-6d

MW-6d

MW-6d

MW-6d

4/20/2000

4/19/1999

10/19/1998

4/24/2003

4/12/2001

4/20/2000

4/19/1999

cis-1,3-DICHLOROPROPENE	BDL	BDL	BDL	—	BDL	BDL	<10
ETHYLBENZENE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
2-HEXANONE (I)	BDL	BDL	BDL	—	BDL	BDL	<100
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	BDL	BDL	—	BDL	BDL	<100
METHYLENE CHLORIDE	BDL	BDL	BDL	—	BDL	BDL	<50
STYRENE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	—	BDL	BDL	<10
TETRACHLOROETHENE	BDL	BDL	BDL	—	BDL	BDL	<10
TOLUENE (I)	BDL	BDL	BDL	—	BDL	BDL	<10
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	—	BDL	BDL	<10
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	2.1	<10
TRICHLOROETHENE	BDL	BDL	BDL	—	BDL	BDL	<10
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	<10
XYLENES (total) (I)	BDL	BDL	BDL	—	BDL	BDL	<30

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-6d	MW-6d (duplicate)	MW-6s	MW-6S	MW-6s	MW-6s	MW-6s
	10/15/1998	10/15/1998	4/24/2003	4/12/2001	4/20/2000	4/19/1999	10/15/1998
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	BDL	BDL	—	BDL	BDL	BDL	BDL
NITROGEN, Ammonia (B)	880	870	—	58	310	BDL	2300
NITROGEN, Nitrite/Nitrate (B)	BDL	BDL	160/1400	240	2000	240	BDL
SULFATE (B)	—	—	56000	25000	18000	—	—
CALCIUM (B)	150000	150000	—	140000	70000	120000	120000
MAGNESIUM (B)	37000	37000	—	31000	20000	BDL	27000
POTASSIUM (B)	1700	1700	—	2200	2100	900	1800
SODIUM (B)	58000	60000	82000	130000	48000	110000	79000
IRON (B)							280
TRACE METALS							
ALUMINUM (B)	BDL	BDL	—	BDL	—	—	BDL
ANTIMONY (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
ARSENIC (B)	BDL	BDL	—	BDL	BDL	6	BDL
BARIUM (B)	BDL	BDL	—	160	170	BDL	BDL
BERYLLIUM (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
CADMIUM (B)	BDL	BDL	1.3	BDL	—	0.64	0.92
CHROMIUM (B,H)	BDL	BDL	8.1	BDL	7.7	57	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	BDL	78	BDL	71	BDL
MANGANESE (B)	BDL	BDL	—	110	—	93	570
MERCURY (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	BDL	—	BDL	5.5	BDL	BDL
SILVER (B)	BDL	BDL	—	BDL	BDL	0.56	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	BDL	BDL	—	40	37	BDL	21
ORGANIC COMPOUNDS							
ACETONE (I)	<100	<100	BDL	BDL	BDL	BDL	<100
BENZENE (I)	<40	<40	—	BDL	BDL	BDL	<20
BROMOCHLOROMETHANE	<8	<8	—	BDL	BDL	BDL	<4
BROMODICHLOROMETHANE	<8	<8	—	BDL	BDL	BDL	<4
BROMOFORM	<8	<8	—	BDL	BDL	BDL	<4
BROMOMETHANE	<8	<8	—	BDL	BDL	BDL	<4
2-BUTANONE (MEK) (I)	<80	<80	—	BDL	BDL	BDL	<50
CARBON DISULFIDE (I,R)	<50	<50	—	BDL	BDL	BDL	<50
CARBON TETRACHLORIDE	<8	<8	—	BDL	BDL	BDL	<4
CHLOROBENZENE (I)	<8	<8	—	BDL	BDL	BDL	<4
CHLOROETHANE (I)	<8	11	BDL	BDL	BDL	BDL	<4
CHLOROFORM	<8	<8	—	BDL	BDL	BDL	<4
CHLOROMETHANE (I)	<8	<8	—	BDL	BDL	BDL	<4
1,2-DIBROMO-3-CHLOROPROPANE	<8	<8	—	BDL	BDL	BDL	<4
DIBROMOCHLOROMETHANE	<8	<8	—	BDL	BDL	BDL	<4
1,2-DIBROMOETHANE	<8	<8	—	BDL	—	BDL	<4
1,4-DICHLOROBENZENE	<8	<8	—	BDL	BDL	BDL	<4
1,2-DICHLOROBENZENE	<8	<8	—	BDL	BDL	BDL	<4
1,3-DICHLOROBENZENE	<8	<8	—	BDL	BDL	BDL	<4
1,1-DICHLOROETHANE (I)	240	240	BDL	BDL	BDL	BDL	81
1,2-DICHLOROETHANE (I)	<8	<8	BDL	BDL	BDL	BDL	<4
trans-1,2-DICHLOROETHENE	<8	<8	—	BDL	BDL	BDL	<4
cis-1,2-DICHLOROETHENE (I)	<8	<8	BDL	BDL	BDL	BDL	<4
1,1-DICHLOROETHENE (I)	<8	<8	BDL	BDL	BDL	BDL	<4
1,2-DICHLOROPROPANE (I)	<8	<8	—	BDL	BDL	BDL	<4
trans-1,3-DICHLOROPROPENE	<8	<8	—	BDL	BDL	BDL	<4

TABLE 1 SUMMARY OF WATER ANALYSES

	MW-6d	MW-6d (duplicate)	MW-6s	MW-6S	MW-6s	MW-6s	MW-6s
Adams Plating Company Project No. 129-0970	10/15/1998	10/15/1998	4/24/2003	4/12/2001	4/20/2000	4/19/1999	10/15/1998
cis-1,3-DICHLOROPROPENE	<8	<8	—	BDL	BDL	BDL	<4
ETHYLBENZENE (I)	<8	<8	—	BDL	BDL	BDL	<4
2-HEXANONE (I)	<80	<80	—	BDL	BDL	BDL	<50
4-METHYL-2-PENTANONE (MIBK) (I)	<80	<80	—	BDL	BDL	BDL	<50
METHYLENE CHLORIDE	<40	<40	—	BDL	BDL	BDL	<20
STYRENE (I)	<8	<8	—	BDL	BDL	BDL	<4
1,1,2,2-TETRACHLOROETHANE	<8	<8	—	BDL	BDL	BDL	<4
TETRACHLOROETHENE	<8	<8	—	BDL	BDL	BDL	<4
TOLUENE (I)	<8	<8	—	BDL	BDL	BDL	<4
1,1,2-TRICHLOROETHANE	<8	<8	—	BDL	BDL	BDL	<4
1,1,1-TRICHLOROETHANE	<8	<8	BDL	BDL	BDL	BDL	130
TRICHLOROETHENE	<8	<8	—	BDL	BDL	BDL	<4
VINYL CHLORIDE	<8	<8	BDL	BDL	BDL	BDL	<4
XYLENES (total) (I)	<24	<24	—	BDL	BDL	BDL	<12

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

MW-7d	MW-7d	MW-7d (duplicate)	MW-7d	MW-7d	MW-7d	MW-7d	MW-7d (duplicate)
4/23/2003	4/11/2001	4/11/2001	4/20/2000	4/19/1999	10/19/1998	10/19/1998	10/19/1998

MAJOR CONSTITUENTS/MISC. INORGANICS

CYANIDE (total)	—	BDL	BDL	BDL	BDL	BDL	BDL
NITROGEN, Ammonia (B)	—	630	620	280	370	460	580
NITROGEN, Nitrite/Nitrate (B)	61	BDL	BDL	1800	BDL	BDL	BDL
SULFATE (B)	—	380000	380000	—	—	—	—
CALCIUM (B)	—	200000	200000	220000	180000	180000	150000
MAGNESIUM (B)	—	58000	87000	110000	85000	85000	83000
POTASSIUM (B)	—	1200	1300	1000	1100	1000	1500
SODIUM (B)	29000	34000	35000	27000	28000	50000	50000
IRON (B)	—	—	—	—	—	—	—

TRACE METALS

ALUMINUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ANTIMONY (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
ARSENIC (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
BARIUM (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
BERYLLIUM (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
CADMIUM (B)	0.81	BDL	BDL	BDL	1.7	BDL	BDL
CHROMIUM (B,H)	BDL	5.7	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MANGANESE (B)	—	—	—	—	—	—	—
MERCURY (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
SILVER (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	—	61	28	BDL	23	22	BDL

ORGANIC COMPOUNDS

ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
BROMOCHLOROMETHANE	—	BDL	BDL	BDL	BDL	BDL	BDL
BROMODICHLOROMETHANE	—	BDL	BDL	BDL	BDL	BDL	BDL
BROMOFORM	—	BDL	BDL	BDL	BDL	BDL	BDL
BROMOMETHANE	—	BDL	BDL	BDL	BDL	BDL	BDL
2-BUTANONE (MEK) (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
CARBON DISULFIDE (I,R)	—	BDL	BDL	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE	—	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROBENZENE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	—	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROMETHANE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	—	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	—	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DIBROMOETHANE	—	BDL	BDL	—	BDL	BDL	BDL
1,4-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	—	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,3-DICHLOROPROPENE	—	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-7d	MW-7d	MW-7d (duplicate)	MW-7d	MW-7d	MW-7d	MW-7d (duplicate)
	4/23/2003	4/11/2001	4/11/2001	4/20/2000	4/19/1999	10/19/1998	10/19/1998
cis-1,3-DICHLOROPROPENE	—	BDL	BDL	BDL	BDL	BDL	BDL
ETHYLBENZENE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
2-HEXANONE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	—	BDL	BDL	BDL	BDL	BDL	BDL
STYRENE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	—	BDL	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	—	BDL	BDL	BDL	BDL	BDL	BDL
TOLUENE (I)	—	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	—	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	—	BDL	BDL	BDL	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	—	BDL	BDL	BDL	BDL	BDL	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

MW-7s	MW-7s	MW-7s	MW-7s	MW-7s	MW-8d	MW-8d
4/23/2003	4/11/2001	4/20/2000	4/19/1999	(duplicate) 4/19/1999	4/23/2003	(duplicate A) 4/23/2003

MAJOR CONSTITUENTS/MISC. INORGANICS

CYANIDE (total)	—	BDL	BDL	BDL	BDL	—	—
NITROGEN, Ammonia (B)	—	150	97	BDL	BDL	—	—
NITROGEN, Nitrite/Nitrate (B)	1900	1400	2200	240	230	780	590
SULFATE (B)	140000	170000	200000	—	—	99000	99000
CALCIUM (B)	—	180000	180000	120000	140000	—	—
MAGNESIUM (B)	—	58000	57000	41000	48000	—	—
POTASSIUM (B)	—	2300	2500	1980	2300	—	—
SODIUM (B)	22000	23000	26000	19000	21000	72000	80000
IRON (B)	240	120	130	—	280	270	—

TRACE METALS

ALUMINUM (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
ANTIMONY (B)	—	BDL	BDL	BDL	BDL	—	—
ARSENIC (B)	—	BDL	BDL	BDL	BDL	—	—
BARIUM (B)	—	BDL	BDL	BDL	BDL	—	—
BERYLLIUM (B)	—	BDL	BDL	BDL	BDL	—	—
CADMIUM (B)	BDL	BDL	BDL	BDL	BDL	0.86	BDL
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MANGANESE (B)	—	BDL	BDL	BDL	BDL	—	—
MERCURY (B)	—	BDL	BDL	BDL	BDL	—	—
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	—	BDL	15	BDL	BDL	—	—
SILVER (B)	—	BDL	BDL	BDL	BDL	—	—
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	—	BDL	BDL	BDL	BDL	—	—

ORGANIC COMPOUNDS

ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	—	BDL	BDL	BDL	BDL	—	—
BROMOCHLOROMETHANE	—	BDL	BDL	BDL	BDL	—	—
BROMODICHLOROMETHANE	—	BDL	BDL	BDL	BDL	—	—
BROMOFORM	—	BDL	BDL	BDL	BDL	—	—
BROMOMETHANE	—	BDL	BDL	BDL	BDL	—	—
2-BUTANONE (MEK) (I)	—	BDL	BDL	BDL	BDL	—	—
CARBON DISULFIDE (I,R)	—	BDL	BDL	BDL	BDL	—	—
CARBON TETRACHLORIDE	—	BDL	BDL	BDL	BDL	—	—
CHLOROBENZENE (I)	—	BDL	BDL	BDL	BDL	—	—
CHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	—	BDL	BDL	BDL	BDL	—	—
CHLOROMETHANE (I)	—	BDL	BDL	BDL	BDL	—	—
1,2-DIBROMO-3-CHLOROPROPANE	—	BDL	BDL	BDL	BDL	—	—
DIBROMOCHLOROMETHANE	—	BDL	BDL	BDL	BDL	—	—
1,2-DIBROMOETHANE	—	BDL	—	BDL	BDL	—	—
1,4-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	—	—
1,2-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	—	—
1,3-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	—	—
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	—	BDL	BDL	BDL	BDL	—	—
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	—	BDL	BDL	BDL	BDL	—	—
trans-1,3-DICHLOROPROPENE	—	BDL	BDL	BDL	BDL	—	—

TABLE J SUMMARY OF WATER ANALYSES	MW-7s	MW-7s	MW-7s	MW-7s	MW-7s	MW-8d	MW-8d
Adams Plating Company							
Project No. 129-0970	4/23/2003	4/11/2001	4/20/2000	4/19/1999	(duplicate) 4/19/1999	4/23/2003	(duplicate A) 4/23/2003
cis-1,3-DICHLOROPROPENE	—	BDL	BDL	BDL	BDL	—	—
ETHYLBENZENE (I)	—	BDL	BDL	BDL	BDL	—	—
2-HEXANONE (I)	—	BDL	BDL	BDL	BDL	—	—
4-METHYL-2-PENTANONE (MIBK) (I)	—	BDL	BDL	BDL	BDL	—	—
METHYLENE CHLORIDE	—	BDL	BDL	BDL	BDL	—	—
STYRENE (I)	—	BDL	BDL	BDL	BDL	—	—
1,1,2,2-TETRACHLOROETHANE	—	BDL	BDL	BDL	BDL	—	—
TETRACHLOROETHENE	—	BDL	BDL	BDL	BDL	—	—
TOLUENE (I)	—	BDL	BDL	BDL	BDL	—	—
1,1,2-TRICHLOROETHANE	—	BDL	BDL	BDL	BDL	—	—
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	—	BDL	BDL	BDL	BDL	—	—
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	—	BDL	BDL	BDL	BDL	—	—

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-8d 4/11/2001	MW-8d 4/20/2000	MW-8d (duplicate) 4/20/2000	MW-8d 4/19/1999	MW-8d 10/15/1998	MW-8d (duplicate) 10/15/1998	MW-8s 4/23/2003
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	BDL	BDL	BDL	BDL	BDL	BDL	—
NITROGEN, Ammonia (B)	2300	190	130	9300	7300	7800	—
NITROGEN, Nitrite/Nitrate (B)	600	BDL	BDL	BDL	BDL	BDL	60
SULFATE (B)	150000	140000	130000	—	—	—	120000
CALCIUM (B)	24000	26000	22000	25000	28000	29000	—
MAGNESIUM (B)	50000	58000	50000	54000	57000	56000	—
POTASSIUM (B)	2500	2800	2700	3300	3800	2900	—
SODIUM (B)	63000	72000	67000	78000	73000	75000	—
IRON (B)	BDL	—	—	—	BDL	BDL	—
TRACE METALS							
ALUMINUM (B)	BDL	—	—	BDL	BDL	BDL	BDL
ANTIMONY (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
ARSENIC (B)	BDL	BDL	BDL	2.2	BDL	BDL	—
BARIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
BERYLLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
CADMIUM (B)	BDL	1.3	1.8	0.55	BDL	BDL	2.5
CHROMIUM (B,H)	BDL	5.3	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	30	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	3.2	—	BDL	BDL	BDL
MANGANESE (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
MERCURY (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
SILVER (B)	BDL	BDL	BDL	BDL	BDL	BDL	—
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	45	220	330	24	BDL	BDL	—
ORGANIC COMPOUNDS							
ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
BROMOCHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	—
BROMODICHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	—
BROMOFORM	BDL	BDL	BDL	BDL	BDL	BDL	—
BROMOMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	—
2-BUTANONE (MEK) (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
CARBON DISULFIDE (I,R)	BDL	BDL	BDL	BDL	BDL	BDL	—
CARBON TETRACHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	—
CHLOROBENZENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
CHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	BDL	BDL	BDL	BDL	BDL	BDL	—
CHLOROMETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
1,2-DIBROMO-3-CHLOROPROPANE	BDL	BDL	BDL	BDL	BDL	BDL	—
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	—
1,2-DIBROMOETHANE	BDL	—	—	BDL	BDL	BDL	—
1,4-DICHLOROBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	—
1,2-DICHLOROBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	—
1,3-DICHLOROBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	—
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	—
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
trans-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	BDL	BDL	—

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-8d	MW-8d	MW-8d	MW-8d	MW-8d	MW-8d	MW-8s
	4/11/2001	4/20/2000	(duplicate) 4/20/2000	4/19/1999	10/15/1998	(duplicate) 10/15/1998	4/23/2000
dis-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	BDL	BDL	—
ETHYLBENZENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
2-HEXANONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
METHYLENE CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	—
STYRENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	—
TETRACHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	—
TOLUENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	—
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	—
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	—
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	BDL	BDL	BDL	BDL	BDL	BDL	—

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company

Project No. 129-0970

ME-8s	MW-8s	MW-8s	MW-8s	MW-9d	MW-9d	MW-9d
4/11/2001	4/20/2000	4/19/1999	10/15/1998	4/24/2003	4/12/2001	4/20/2000

MAJOR CONSTITUENTS/MISC. INORGANICS

CYANIDE (total)	BDL	BDL	8	BDL	—	BDL	BDL
NITROGEN, Amonia (B)	4300	110	3100	4700	—	900	750
NITROGEN, Nitrite/Nitrate (B)	220	2200	380	120	BDL	BDL	1890
SULFATE (B)	80000	89000	—	—	230000	130000	46000
CALCIUM (B)	210000	280000	220000	240000	—	280000	200000
MAGNESIUM (B)	60000	82000	70000	68000	—	85000	68000
POTASSIUM (B)	2500	2800	2500	4100	—	2100	1300
SODIUM (B)					110000		60000
IRON (B)							

TRACE METALS

ALUMINUM (B)	BDL	BDL	BDL	BDL	77	BDL	BDL
ANTIMONY (B)	BDL	BDL	BDL	BDL	—	BDL	BDL
ARSENIC (B)	BDL	BDL	BDL	BDL	—	BDL	BDL
BARIUM (B)	440	690	450	790	—	660	350
BERYLLIUM (B)	BDL	BDL	BDL	BDL	—	BDL	BDL
CADMIUM (B)	1.6	2.8	BDL	BDL	BDL	BDL	1.5
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	17	BDL	11
COPPER (B)	BDL	30	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MANGANESE (B)							
MERCURY (B)	BDL	BDL	BDL	BDL	—	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	31	78	BDL
SELENIUM (B)	BDL	BDL	BDL	BDL	—	BDL	BDL
SILVER (B)	BDL	BDL	2.8	BDL	—	BDL	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	BDL	BDL	BDL	BDL	—	BDL	BDL

ORGANIC COMPOUNDS

ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
BROMOCHLOROMETHANE	BDL	BDL	BDL	BDL	—	BDL	BDL
BROMODICHLOROMETHANE	BDL	BDL	BDL	BDL	—	BDL	BDL
BROMOFORM	BDL	BDL	BDL	BDL	—	BDL	BDL
BROMOMETHANE	BDL	BDL	BDL	BDL	—	BDL	BDL
2-BUTANONE (MEK) (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
CARBON DISULFIDE (I,R)	BDL	BDL	BDL	BDL	—	BDL	BDL
CARBON TETRACHLORIDE	BDL	BDL	BDL	BDL	—	BDL	BDL
CHLOROBENZENE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
CHLOROETHANE (I)	BDL	BDL	BDL	BDL	1.2	1.9	8.9
CHLOROFORM	BDL	BDL	BDL	BDL	—	BDL	BDL
CHLOROMETHANE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	BDL	BDL	BDL	BDL	—	BDL	BDL
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	BDL	—	BDL	BDL
1,2-DIBROMOETHANE	BDL	—	BDL	BDL	—	BDL	—
1,4-DICHLOROBENZENE	BDL	BDL	BDL	BDL	—	BDL	BDL
1,2-DICHLOROBENZENE	BDL	BDL	BDL	BDL	—	BDL	BDL
1,3-DICHLOROBENZENE	BDL	BDL	BDL	BDL	—	BDL	BDL
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	310	140	85
1,2-DICHLOROETHANE (I)	BDL	BDL	1.5	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	BDL	BDL	BDL	BDL	—	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	1.1	1	3.4	1.6	BDL
1,2-DICHLOROPROPANE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
trans-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	—	BDL	BDL

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	ME-8s	MW-8s	MW-8s	MW-8s	MW-9d	MW-9d	MW-9d
	4/11/2001	4/20/2000	4/19/1999	10/15/1998	4/24/2003	4/12/2001	4/20/2000
cis-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	—	BDL	BDL
ETHYLBENZENE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
2-HEXANONE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
METHYLENE CHLORIDE	BDL	BDL	BDL	BDL	—	BDL	BDL
STYRENE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	BDL	—	BDL	BDL
TETRACHLOROETHENE	BDL	BDL	BDL	BDL	—	BDL	BDL
TOLUENE (I)	BDL	BDL	BDL	BDL	—	BDL	BDL
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	BDL	—	BDL	BDL
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	31	32	17
TRICHLOROETHENE	BDL	BDL	BDL	BDL	—	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	BDL	BDL	BDL	BDL	—	BDL	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-9d	MW-9d	MW-11d	MW-11d	MW-11d	MW-11d	MW-11d
	4/19/1999	10/15/1998	4/24/2003	4/12/2001	(duplicate) 4/12/2001	4/20/2000	(duplicate) 4/20/2000
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	9	BDL	—	BDL	BDL	BDL	BDL
NITROGEN, Ammonia (B)	760	740	—	660	430	180	57
NITROGEN, Nitrite/Nitrate (B)	BDL	100	BDL	BDL	BDL	180	BDL
SULFATE (B)	—	—	90000	120000	99000	89000	98000
CALCIUM (B)	200000	200000	—	150000	160000	160000	170000
MAGNESIUM (B)	79000	87000	—	35000	42000	39000	42000
POTASSIUM (B)	1600	2000	—	1100	BDL	740	840
SODIUM (B)	82000	110000	28000	38000	38000	37000	37000
IRON (B)							
TRACE METALS							
ALUMINUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ANTIMONY (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
ARSENIC (B)	4.9	2.7	—	BDL	BDL	BDL	BDL
BARIUM (B)	400	370	—	150	160	130	130
BERYLLIUM (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
CADMIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	11	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MANGANESE (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MERCURY (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
SILVER (B)	BDL	BDL	—	BDL	BDL	BDL	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	BDL	82	—	BDL	BDL	BDL	BDL
ORGANIC COMPOUNDS							
ACETONE (I)	<100	<200	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	<50	<100	—	BDL	BDL	BDL	BDL
BROMOCHLOROMETHANE	<10	<20	—	BDL	BDL	BDL	BDL
BROMODICHLOROMETHANE	<10	<20	—	BDL	BDL	BDL	BDL
BROMOFORM	<10	<20	—	BDL	BDL	BDL	BDL
BROMOMETHANE	<10	<20	—	BDL	BDL	BDL	BDL
2-BUTANONE (MEK) (I)	<100	<200	—	BDL	BDL	BDL	BDL
CARBON DISULFIDE (I,R)	<50	<100	—	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE	<10	<20	—	BDL	BDL	BDL	BDL
CHLOROBENZENE (I)	<10	<20	—	BDL	BDL	BDL	BDL
CHLOROETHANE (I)	<10	<20	1.5	BDL	BDL	BDL	BDL
CHLOROFORM	<10	<20	—	BDL	BDL	BDL	BDL
CHLOROMETHANE (I)	<10	<20	—	BDL	BDL	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	<10	<20	—	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	<10	<20	—	BDL	BDL	BDL	BDL
1,2-DIBROMOETHANE	<10	<20	—	BDL	BDL	—	—
1,4-DICHLOROBENZENE	<10	<20	—	BDL	BDL	BDL	BDL
1,2-DICHLOROBENZENE	<10	<20	—	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE	<10	<20	—	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE (I)	290	730	1.3	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	<10	<20	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	<10	<20	—	BDL	BDL	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	<10	<20	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	<10	<20	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	<10	<20	—	BDL	BDL	BDL	BDL
trans-1,3-DICHLOROPROPENE	<10	<20	—	BDL	BDL	BDL	BDL

TABLE 1 SUMMARY OF WATER ANALYSES	MW-9d	MW-9d	MW-11d	MW-11d	MW-11d (duplicate)	MW-11d	MW-11d (duplicate)
Adams Plating Company							
Project No. 129-0970	4/19/1999	10/15/1998	4/24/2003	4/12/2001	4/12/2001	4/20/2000	4/20/2000
dis-1,3-DICHLOROPROPENE	<10	<20	—	BDL	BDL	BDL	BDL
ETHYLBENZENE (I)	<10	<20	—	BDL	BDL	BDL	BDL
2-HEXANONE (I)	<100	<200	—	BDL	BDL	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	<100	<200	—	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	<50	<100	—	BDL	BDL	BDL	BDL
STYRENE (I)	<10	<20	—	BDL	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	<10	<20	—	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	<10	<20	—	BDL	BDL	BDL	BDL
TOLUENE (I)	<10	<20	—	BDL	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	<10	<20	—	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	52	85	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	<10	<20	—	BDL	BDL	BDL	BDL
VINYL CHLORIDE	<10	<20	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	<30	<60	—	BDL	BDL	BDL	BDL

Notes: — - Not analyzed
BDL - Below detection limits
A - MI Act 399 standard
B - Background concentration
E - Aesthetic drinking water standard
I - May be ignitable
L - Higher levels may be allowed.
N - Sum of all N compared to NO3
M - Criteria is below DL
R - May be reactive
V - Criteria is a secondary MCL
W - Standard for THMs is 100 ug/l
Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES
Adams Plating Company
Project No. 129-0970

	MW-11d 4/19/1999	MW-11d 10/15/1998	MW-11d (duplicate) 10/15/1998	MW-11s 4/24/2003	MW-11s 4/12/2001	MW-11s 4/20/2000	MW-11s 4/20/199
MAJOR CONSTITUENTS/MISC. INORGANICS							
CYANIDE (total)	BDL	BDL	BDL	—	BDL	BDL	BDL
NITROGEN, Ammonia (B)	390	420	420	—	3200	67	3200
NITROGEN, Nitrite/Nitrate (B)	BDL	BDL	BDL	68	160	1800	BDL
SULFATE (B)	—	—	—	120000	140000	140000	—
CALCIUM (B)	130000	150000	140000	—	130000	150000	140000
MAGNESIUM (B)	31000	37000	38000	—	33000	40000	35000
POTASSIUM (B)	810	1000	770	—	1400	1300	1900
SODIUM (B)	28000	38000	34000	50000	72000	80000	80000
IRON (B)							
TRACE METALS							
ALUMINUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ANTIMONY (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
ARSENIC (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
BARIUM (B)	BDL	BDL	BDL	—	180	150	BDL
BERYLLIUM (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
CADMIUM (B)	BDL	0.66	BDL	0.58	BDL	BDL	BDL
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	BDL	BDL	3.7	BDL	BDL	BDL
MANGANESE (B)				310			
MERCURY (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
SILVER (B)	BDL	BDL	BDL	—	BDL	BDL	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	BDL	49	26	—	23	BDL	27
ORGANIC COMPOUNDS							
ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
BROMOCHLOROMETHANE	BDL	BDL	BDL	—	BDL	BDL	BDL
BROMODICHLOROMETHANE	BDL	BDL	BDL	—	BDL	BDL	BDL
BROMOFORM	BDL	BDL	BDL	—	BDL	BDL	BDL
BROMOMETHANE	BDL	BDL	BDL	—	BDL	BDL	BDL
2-BUTANONE (MEK) (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
CARBON DISULFIDE (I,R)	BDL	BDL	BDL	—	BDL	BDL	BDL
CARBON TETRACHLORIDE	BDL	BDL	BDL	—	BDL	BDL	BDL
CHLORO BENZENE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
CHLOROETHANE (I)	1.1	BDL	BDL	5.7	9.6	24	49
CHLOROFORM	BDL	BDL	BDL	—	BDL	BDL	BDL
CHLOROMETHANE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	BDL	BDL	BDL	—	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	—	BDL	BDL	BDL
1,2-DIBROMOETHANE	BDL	BDL	BDL	—	BDL	—	BDL
1,4-DICHLORO BENZENE	BDL	BDL	BDL	—	BDL	BDL	BDL
1,2-DICHLORO BENZENE	BDL	BDL	BDL	—	BDL	BDL	BDL
1,3-DICHLORO BENZENE	BDL	BDL	BDL	—	BDL	BDL	BDL
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	3.7	1.9	2.7	33
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	BDL	BDL	BDL	—	BDL	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	1.4	1.4	3.9
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	2.4	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
trans-1,3-DICHLOROPROPENE	BDL	BDL	BDL	—	BDL	BDL	BDL

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-11d	MW-11d	MW-11d (duplicate)	MW-11s	MW-11s	MW-11s	MW-11s
	4/19/1999	10/15/1998	10/15/1998	4/24/2003	4/12/2001	4/20/2000	4/20/1998
cis-1,3-DICHLOROPROPENE	BDL	BDL	BDL	—	BDL	BDL	BDL
ETHYLBENZENE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
2-HEXANONE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
METHYLENE CHLORIDE	BDL	BDL	BDL	—	BDL	BDL	BDL
STYRENE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	—	BDL	BDL	BDL
TETRACHLOROETHENE	BDL	BDL	BDL	—	BDL	BDL	BDL
TOLUENE (I)	BDL	BDL	BDL	—	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	—	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	BDL	3.1	9.6	BDL	BDL	BDL	BDL
TRICHLOROETHENE	BDL	BDL	BDL	—	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	BDL	BDL	BDL	—	BDL	BDL	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES	MW-11s	MW-12d	MW-12d (duplicate B)	MW-12d	MW-12d	MW-12d	MW-12d
Adams Plating Company	10/15/1998	4/24/2003	4/24/2003	4/12/2001	4/20/2000	4/19/1999	10/19/1998
Project No. 129-0970							

MAJOR CONSTITUENTS/MISC. INORGANICS

CYANIDE (total)	BDL	—	—	BDL	BDL	BDL	6
NITROGEN, Ammonia (B)	4200	—	—	130	82	1300	1400
NITROGEN, Nitrite/Nitrate (B)	BDL	BDL	49	700	2600	BDL	280
SULFATE (B)	—	93000	92000	66000	80000	—	130000
CALCIUM (B)	130000	—	—	150000	160000	180000	170000
MAGNESIUM (B)	36000	—	—	33000	40000	43000	43000
POTASSIUM (B)	1800	—	—	1500	1800	1800	1800
SODIUM (B)	85000	40000	40000	50000	52000	53000	73000
IRON (B)							

TRACE METALS

ALUMINUM (B)	BDL			BDL	BDL	BDL	BDL
ANTIMONY (B)	BDL	—	—	BDL	BDL	BDL	BDL
ARSENIC (B)	BDL	—	—	BDL	BDL	BDL	BDL
BARIUM (B)	BDL	—	—	130	180	BDL	BDL
BERYLLIUM (B)	BDL	—	—	BDL	BDL	BDL	BDL
CADMIUM (B)	BDL				2.4	BDL	BDL
CHROMIUM (B,H)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD (B)	BDL	5.5	3.4	BDL	BDL	BDL	BDL
MANGANESE (B)	BDL	290	1000	BDL			
MERCURY (B)	BDL	—	—	BDL	BDL	BDL	BDL
NICKEL (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SELENIUM (B)	BDL	—	—	BDL	BDL	BDL	BDL
SILVER (B)	BDL	—	—	BDL	BDL	BDL	BDL
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	65	—	—	BDL	21	32	32

ORGANIC COMPOUNDS

ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	BDL	—	—	BDL	BDL	BDL	BDL
BROMOCHLOROMETHANE	BDL	—	—	BDL	BDL	BDL	BDL
BROMODICHLOROMETHANE	BDL	—	—	BDL	BDL	BDL	BDL
BROMOFORM	BDL	—	—	BDL	BDL	BDL	BDL
BROMOMETHANE	BDL	—	—	BDL	BDL	BDL	BDL
2-BUTANONE (MEK) (I)	BDL	—	—	BDL	BDL	BDL	BDL
CARBON DISULFIDE (I,R)	BDL	—	—	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE	BDL	—	—	BDL	BDL	BDL	BDL
CHLOROBENZENE (I)	BDL	—	—	BDL	BDL	BDL	BDL
CHLOROETHANE (I)	48	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	BDL	—	—	BDL	BDL	BDL	BDL
CHLOROMETHANE (I)	BDL	—	—	BDL	BDL	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	BDL	—	—	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	BDL	—	—	BDL	BDL	BDL	BDL
1,2-DIBROMOETHANE	BDL	—	—	BDL	—	BDL	BDL
1,4-DICHLOROBENZENE	BDL	—	—	BDL	BDL	BDL	BDL
1,2-DICHLOROBENZENE	BDL	—	—	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE	BDL	—	—	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE (I)	29	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	BDL	—	—	BDL	BDL	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	2.6	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	BDL	—	—	BDL	BDL	BDL	BDL
trans-1,3-DICHLOROPROPENE	BDL	—	—	BDL	BDL	BDL	BDL

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

	MW-11s	MW-12d	MW-12d (duplicate B)	MW-12d	MW-12d	MW-12d	MW-12d
	10/15/1998	4/24/2003	4/24/2003	4/12/2001	4/20/2000	4/19/1999	10/19/1998
cis-1,3-DICHLOROPROPENE	BDL	—	—	BDL	BDL	BDL	BDL
ETHYLBENZENE (I)	BDL	—	—	BDL	BDL	BDL	BDL
2-HEXANONE (I)	BDL	—	—	BDL	BDL	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	—	—	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	BDL	—	—	BDL	BDL	BDL	BDL
STYRENE (I)	BDL	—	—	BDL	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	BDL	—	—	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	BDL	—	—	BDL	BDL	BDL	BDL
TOLUENE (I)	BDL	—	—	BDL	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	BDL	—	—	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	1.4	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	BDL	—	—	BDL	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	BDL	—	—	BDL	BDL	BDL	BDL

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE I SUMMARY OF WATER ANALYSES

Adams Plating Company
Project No. 129-0970

MW-12s	MW-12s	MW-12s	MW-12s	MW-12s	MW-12s	BLANK
4/24/2003	4/12/2001	4/20/2000	4/19/1999	4/19/1999 (duplicate)	10/19/1998	4/24/2003

MAJOR CONSTITUENTS/MISC. INORGANICS

CYANIDE (total)	—	BDL	BDL	BDL	BDL	BDL	—
NITROGEN, Amonia (B)	—	2200	BDL	2000	2000	370	—
NITROGEN, Nitrite/Nitrate (B)	48	BDL	BDL	BDL	BDL	100	37
SULFATE (B)	—	—	—	—	—	100000	BDL
CALCIUM (B)	—	100000	180000	67000	80000	39000	—
MAGNESIUM (B)	—	65000	84000	48000	52000	39000	—
POTASSIUM (B)	—	3000	3200	3000	3000	2000	—
SODIUM (B)	—	—	—	—	—	—	BDL
IRON (B)	—	—	—	—	—	BDL	BDL

TRACE METALS

ALUMINUM (B)	—	BDL	BDL	BDL	BDL	BDL	BDL
ANTIMONY (B)	—	BDL	BDL	BDL	BDL	BDL	—
ARSENIC (B)	—	BDL	BDL	2.7	2.8	BDL	—
BARIUM (B)	—	100	170	BDL	BDL	BDL	—
BERYLLIUM (B)	—	BDL	BDL	BDL	BDL	BDL	—
CADMIUM (B)	—	1.8	—	1.3	BDL	BDL	BDL
CHROMIUM (B,H)	BDL	13	17	BDL	BDL	BDL	BDL
COBALT (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER (B)	BDL	BDL	120	BDL	BDL	BDL	BDL
LEAD (B)	—	4.5	14	3.7	BDL	BDL	BDL
MANGANESE (B)	29	80	130	BDL	47	BDL	BDL
MERCURY (B)	—	BDL	BDL	BDL	BDL	BDL	—
NICKEL (B)	BDL	BDL	74	BDL	BDL	BDL	BDL
SELENIUM (B)	—	6.1	BDL	BDL	BDL	BDL	—
SILVER (B)	—	BDL	BDL	BDL	BDL	BDL	—
THALLIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VANADIUM (B)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC (B)	—	53	150	56	BDL	BDL	—

ORGANIC COMPOUNDS

ACETONE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE (I)	—	BDL	BDL	BDL	BDL	BDL	—
BROMOCHLOROMETHANE	—	BDL	BDL	BDL	BDL	BDL	—
BROMODICHLOROMETHANE	—	BDL	BDL	BDL	BDL	BDL	—
BROMOFORM	—	BDL	BDL	BDL	BDL	BDL	—
BROMOMETHANE	—	BDL	BDL	BDL	BDL	BDL	—
2-BUTANONE (MEK) (I)	—	BDL	BDL	BDL	BDL	BDL	—
CARBON DISULFIDE (I,R)	—	BDL	BDL	BDL	BDL	BDL	—
CARBON TETRACHLORIDE	—	BDL	BDL	BDL	BDL	BDL	—
CHLOROBENZENE (I)	—	BDL	BDL	BDL	BDL	BDL	—
CHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	—	BDL	BDL	BDL	BDL	BDL	—
CHLOROMETHANE (I)	—	BDL	BDL	BDL	BDL	BDL	—
1,2-DIBROMO-3-CHLOROPROPANE	—	BDL	BDL	BDL	BDL	BDL	—
DIBROMOCHLOROMETHANE	—	BDL	BDL	BDL	BDL	BDL	—
1,2-DIBROMOETHANE	—	BDL	—	BDL	BDL	BDL	—
1,4-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	BDL	—
1,2-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	BDL	—
1,3-DICHLOROBENZENE	—	BDL	BDL	BDL	BDL	BDL	—
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	—	BDL	BDL	BDL	BDL	BDL	—
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	—	BDL	BDL	BDL	BDL	BDL	—
trans-1,3-DICHLOROPROPENE	—	BDL	BDL	BDL	BDL	BDL	—

TABLE 1 SUMMARY OF WATER ANALYSES	MW-12s	MW-12s	MW-12s	MW-12s	MW-12s (duplicate)	MW-12s	BLANK
Adams Plating Company							
Project No. 129-0970	4/24/2003	4/12/2001	4/20/2000	4/19/1999	4/19/1999	10/19/1998	4/24/2003
cis-1,3-DICHLOROPROPENE	—	BDL	BDL	BDL	BDL	BDL	—
ETHYLBENZENE (I)	—	BDL	BDL	BDL	BDL	BDL	—
2-HEXANONE (I)	—	BDL	BDL	BDL	BDL	BDL	—
4-METHYL-2-PENTANONE (MIBK) (I)	—	BDL	BDL	BDL	BDL	BDL	—
METHYLENE CHLORIDE	—	BDL	BDL	BDL	BDL	BDL	—
STYRENE (I)	—	BDL	BDL	BDL	BDL	BDL	—
1,1,2,2-TETRACHLOROETHANE	—	BDL	BDL	BDL	BDL	BDL	—
TETRACHLOROETHENE	—	BDL	BDL	BDL	BDL	BDL	—
TOLUENE (I)	—	BDL	BDL	BDL	BDL	BDL	—
1,1,2-TRICHLOROETHANE	—	BDL	BDL	BDL	BDL	BDL	—
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	—	BDL	BDL	BDL	BDL	BDL	—
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (total) (I)	—	BDL	BDL	BDL	BDL	BDL	—

Notes: — - Not analyzed

BDL - Below detection limits

A - MI Act 399 standard

B - Background concentration

E - Aesthetic drinking water standard

I - May be ignitable

L - Higher levels may be allowed.

N - Sum of all N compared to NO3

M - Criteria is below DL

R - May be reactive

V - Criteria is a secondary MCL

W - Standard for THMs is 100 ug/l

Shaded cell exceeds GRCC.

TABLE 1 SUMMARY OF WATER ANALYSES

Adams Plating Company

Project No. 129-0970

BLANK

(rinse)

4/20/2000

BLANK

(rinse)

4/19/1999

BLANK

(rinse)

10/19/1998

TRIP BLANK

10/19/1998

MAJOR CONSTITUENTS/MISC. INORGANICS

CYANIDE (total)	—	—	BDL	—
NITROGEN, Ammonia (B)	—	—	BDL	—
NITROGEN, Nitrite/Nitrate (B)	—	—	220	—
SULFATE (B)	—	—	2400	—
CALCIUM (B)	—	—	6600	—
MAGNESIUM (B)	—	—	2500	—
POTASSIUM (B)	—	—	390	—
SODIUM (B)	—	—	5500	—
IRON (B)	—	—	BDL	—

TRACE METALS

ALUMINUM (B)	—	—	BDL	—
ANTIMONY (B)	—	—	BDL	—
ARSENIC (B)	—	—	BDL	—
BARIUM (B)	—	—	BDL	—
BERYLLIUM (B)	—	—	BDL	—
CADMIUM (B)	—	—	BDL	—
CHROMIUM (B,H)	—	—	BDL	—
COBALT (B)	—	—	BDL	—
COPPER (B)	—	—	BDL	—
LEAD (B)	—	—	BDL	—
MANGANESE (B)	—	—	BDL	—
MERCURY (B)	—	—	BDL	—
NICKEL (B)	—	—	BDL	—
SELENIUM (B)	—	—	BDL	—
SILVER (B)	—	—	BDL	—
THALLIUM (B)	—	—	BDL	—
VANADIUM (B)	—	—	BDL	—
ZINC (B)	—	—	BDL	—

ORGANIC COMPOUNDS

ACETONE (I)	BDL	BDL	BDL	BDL
BENZENE (I)	BDL	BDL	BDL	BDL
BROMOCHLOROMETHANE	BDL	BDL	BDL	BDL
BROMODICHLOROMETHANE	BDL	BDL	BDL	BDL
BROMOFORM	BDL	BDL	BDL	BDL
BROMOMETHANE	BDL	BDL	BDL	BDL
2-BUTANONE (MEK) (I)	BDL	BDL	BDL	BDL
CARBON DISULFIDE (I,R)	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE	BDL	BDL	BDL	BDL
CHLOROBENZENE (I)	BDL	BDL	BDL	BDL
CHLOROETHANE (I)	BDL	BDL	BDL	BDL
CHLOROFORM	BDL	BDL	BDL	BDL
CHLOROMETHANE (I)	BDL	BDL	BDL	BDL
1,2-DIBROMO-3-CHLOROPROPANE	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	BDL
1,2-DIBROMOETHANE	—	BDL	BDL	BDL
1,4-DICHLOROBENZENE	BDL	BDL	BDL	BDL
1,2-DICHLOROBENZENE	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE (I)	BDL	BDL	BDL	BDL
trans-1,2-DICHLOROETHENE	BDL	BDL	BDL	BDL
cis-1,2-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE (I)	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE (I)	BDL	BDL	BDL	BDL
trans-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL

TABLE I SUMMARY OF WATER ANALYSES	BLANK	BLANK	BLANK	TRIP BLANK
Adams Plating Company	(rinsate)	(rinsate)	(rinsate)	
Project No. 129-0970	4/20/2000	4/19/1999	10/19/1998	10/19/1998

cis-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL
ETHYLBENZENE (I)	BDL	BDL	BDL	BDL
2-HEXANONE (I)	BDL	BDL	BDL	BDL
4-METHYL-2-PENTANONE (MIBK) (I)	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	BDL	BDL	BDL	BDL
STYRENE (I)	BDL	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	BDL	BDL	BDL	BDL
TOLUENE (I)	BDL	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL
TRICHLOROETHENE	BDL	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL
XYLENES (total) (I)	BDL	BDL	BDL	BDL

Notes: — - Not analyzed
BDL - Below detection limits
A - MI Act 399 standard
B - Background concentration
E - Aesthetic drinking water standard
I - May be ignitable
L - Higher levels may be allowed.
N - Sum of all N compared to NO3
M - Criteria is below DL
R - May be reactive
V - Criteria is a secondary MCL
W - Standard for THMs is 100 ug/l
Shaded cell exceeds GRCC.

TABLE 2. SUMMARY OF TRACE METAL CONCENTRATIONS THAT EXCEED GRCC

Adams Plating Company
Project No. 129-0970

	Aluminum (ug/l)	Cadmium (ug/l)	Chromium (ug/l)	Cobalt (ug/l)	Lead (ug/l)	Manganese (ug/l)	Nickel (ug/l)
Res./Commercial 1 GRCC (Drinking Water)	50	5	100	40	4	50	100
MW-2d	BDL	BDL	7.5	37	BDL		33
MW-4s		BDL	82	BDL	BDL		27
MW-4d		BDL	BDL	BDL	BDL		BDL
MW-5d	BDL	BDL	BDL	15	BDL		BDL
MW-6s		1.3	8.1	BDL	BDL	38	31
MW-6d	BDL	0.59	BDL	BDL	BDL		BDL
MW-7s		BDL	BDL	BDL	BDL		BDL
MW-7d	BDL	0.81	BDL	BDL	BDL		BDL
MW-8s	BDL	2.5	BDL	BDL	BDL	370	BDL
MW-8d	BDL	0.86	BDL	BDL	BDL	270	BDL
MW-9d	77	BDL	BDL	17	BDL	250	31
MW-11s	BDL	0.58	BDL	BDL		310	BDL
MW-11d	BDL	BDL	BDL	BDL	BDL	290	BDL
MW-12s	420	7.1	BDL	BDL	8.5	29	BDL
MW-12d	280	9.1	BDL	BDL	5.5	290	BDL

Shaded cell indicates that concentration
exceeds GRCC.

Attachment 7

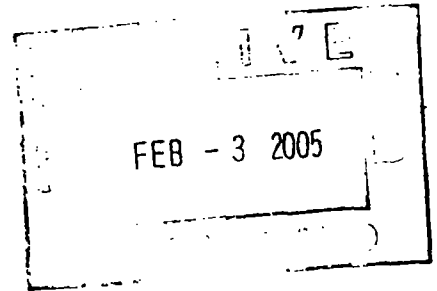
Letter Requesting Modification of Groundwater Monitoring Plan

Adams Plating

521 N. Rosemary Street · Lansing, MI 48917
Telephone 517/321-8239 · Fax 517/321-0316

January 22, 2005

Mary Schafer
MDEQ-RRD Superfund
P.O. Box 30426
Lansing, Michigan 48909-7926



Dear Mary,

Adams Plating respectfully requests a revision to the current groundwater monitoring program. Currently, testing is taking place on a biannual basis and at all monitoring wells. Based upon results from this testing the M.D.E.Q. and EPA have amassed a considerable amount of data regarding this site. Without having the professional where with all to diagnose the volumes of data generated by this testing, my suggestions are based on my layman's ability to interpret the results.

The proposed request is to either eliminate some of the wells currently being tested or increase the interval between sampling events.

Proposal one: Eliminate sampling wells 5D, 7S, 7D, 8S, 8D, 11S, 11D, 12S, 12D. This would still provide data from the wells in close proximity to the Adams Plating site.

Proposal two: Reduce sampling events to five year intervals. Current trends from the Adams Plating site could possibly support such action. In the event of M.D.E.Q. approval of this action the next sampling event would take place in April of 2008.

Either of these proposals would be of financial benefit to Adams Plating. Although the burden of continuing such an exhaustive testing program has had profound effects on our small business, we understand the necessity from the public safety perspective. Hopefully the data gathered thus far will support either of the proposals submitted. Thank you for your consideration.

Sincerely,

Steve Adams
Adams Plating Company

Attachment 8

Public Notice



United States Environmental Protection Agency

is conducting a
Five-Year Review
for the

Adams Plating Superfund Site Lansing, Ingham County, Michigan

U.S. EPA announces that it will conduct a 5-Year Review for the Adams Plating Superfund Site, Lansing, Michigan. U.S. EPA conducts these reviews of ongoing cleanups at sites where hazardous substances, pollutants, or contaminants remain. The 5-year review will determine whether the remedy at the site is protective of human health and the environment.

In 1993, the Record of Decision (ROD) for the Site was signed. Major components of that document included:

- Excavation of contaminated soil and off-site disposal in an approved and regulated landfill
- Collection and treatment of water from excavation/dewatering activities
- Replacement of the excavated soil with clean fill and the installation of vertical barriers to reduce the potential for re-contamination of the fill
- If necessary, land use restrictions including deed restrictions on installation of wells and excavation of contaminated soil, and
- Groundwater monitoring to evaluate the effectiveness of the soil remediation and to monitor for continuing sources of contamination

An initial 5-year review was completed on October 7, 1999. In general, that review concluded that the remedy selected in the record of decision and implemented, remained functional, operational and effective, and continued to provide adequate protection of human health and the environment.

In conducting this current review, EPA found that the remedy of the site at 521 Rosemary Street in Lansing, Michigan, remains protective of human health and the environment because of the excavation of the contaminated soil and off-site disposal of such soils. It was further found that the replacement of the contaminated soil with clean fill, and the groundwater monitoring program were protective of human health and the environment in the short term. In order for the remedy to be protective in the long-term, however, it may become necessary to have additional institutional controls ~~need to be~~ put in place to prevent exposure to contaminated groundwater and soils.

The Five-Year Review is being conducted to primarily assess the effectiveness of the actions implemented to date. If it is found that the existing treatments are working and have enhanced the cleanup of the Site, they will continue. If, however, these methods are found not to be working, or that they have failed in their intent, U.S. EPA will make adjustments to these actions.

Although no formal meeting or public comment period ~~or~~ is required for this review U.S. EPA is inviting public opinion relative to this review. You are invited to review existing data for the site found in the site Information Repository in the Lansing Public Library, 401 S Capitol Ave, Reference Section-Second Floor, Lansing.

Interest parties can send their opinions to:

Pablo Valentin
Remedial Project Manager
U.S. Environmental Protection Agency
77 W Jackson Blvd. (SR-6J)
Chicago, IL 60604

or via e-mail to: vaneltin.pablo@epa.gov

Attachment 9

Documents Reviewed

Semi-Annual Groundwater Monitoring Evaluation (October 1998) Adams Plating Company Lansing, Michigan, Strata Environmental Services, Inc., October 1998.

Semi-Annual Groundwater Monitoring Evaluation (April 1999) Adams Plating Company Lansing, Michigan, Strata Environmental Services, Inc., April 1999.

Annual Groundwater Monitoring Evaluation (April 2000) Adams Plating Company Lansing, Michigan, Strata Environmental Services, Inc., April 2000.

Annual Groundwater Monitoring Evaluation (April 2001) Adams Plating Company Lansing, Michigan, Strata Environmental Services, Inc., April 2001.

Annual Groundwater Monitoring Evaluation (April 2003) Adams Plating Company Lansing, Michigan, Strata Environmental Services, Inc., April 2003.

Record of Decision, EPA, September 29, 1993

Explanation of Significant Differences, EPA, September 30, 1994

Superfund Site Preliminary Closeout Report, EPA, September 30, 1994

Superfund Site Closeout Report, EPA, September 28, 1995

Administrative Order on Consent, 1997

Five-Year Review, EPA, October 7, 1999

Addendum to Five Year Review Report, EPA, September 28, 2001

Attachment 10

Comparison of Site Soil Cleanup Standards to 2004 Michigan Part 201 Standards				
	ROD Soil Cleanup Standards (mg/kg)	1994 ESD Cleanup Standards (mg/kg)	2004 MI Part 201 Soil Standards (mg/kg)	
Chemical			Residential and Industrial; Drinking Water Protection	Industrial and Commercial II Direct Contact
Chromium (total)	26.1		30	9.2 X 10 ³
Chromium III		5.8		
Chromium VI		33.5		
Arsenic	6.7		23	37

Attachment 11

Applicable or Relevant and Appropriate Requirements				
Federal ARARs				
Authority	ARAR	Status	Requirement Synopsis	Action to be taken to Attain ARAR
RCRA	40 CFR 268	Applicable	Land disposal restrictions	Disposal of treatment residuals and contaminated oil must be in accordance with the land disposal restrictions.
OSHA	40 CFR 300.38	Applicable	Worker safety	Establishes safety and health standards for protecting employees from unsafe work conditions.
RCRA	40 CFR 261	Applicable	Specifies the characteristics of hazardous waste (CHW)	Solid wastes generated from on-site activities must be evaluated for CHW prior to disposal or treatment.

Authority	ARAR	Status	Requirement Synopsis	Action to be taken to Attain ARAR
State ARARs - Note: NREPA refers to Michigan's PA451, as amended, 1994, the Natural Resources and Environmental Protection Act				
NREPA	Part 55, formerly Public Act 348	Applicable	Outlines permitting requirements to install, construct, reconstruct, relocate, or alter any process, fuel burning equipment, or control equipment which may be a source of an air contaminant.	Only substantive provisions contained in these regulations are required for on-site activities.
NREPA	Part 201, formerly Act 307	Relevant and Appropriate	Presents the substantive criteria and procedures for evaluating cleanup of CERCLA type hazardous waste sites in Michigan.	The substantive criteria for establishing cleanup standards and remedial action activities at the site

Attachment 12

Site Photographs



Figure 1 - Adams Plating Building

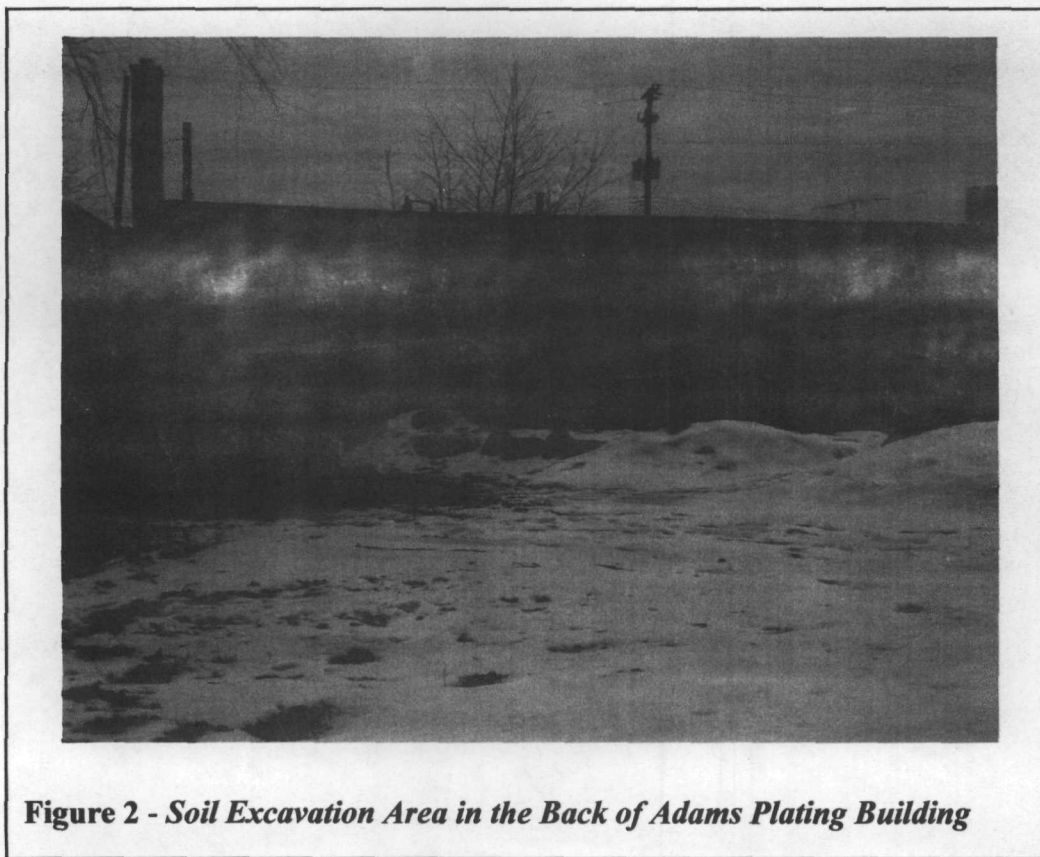


Figure 2 - Soil Excavation Area in the Back of Adams Plating Building



Figure 3 - *Monitoring Well MW-02*



Figure 4 - *Monitoring Well Location MW-5d*